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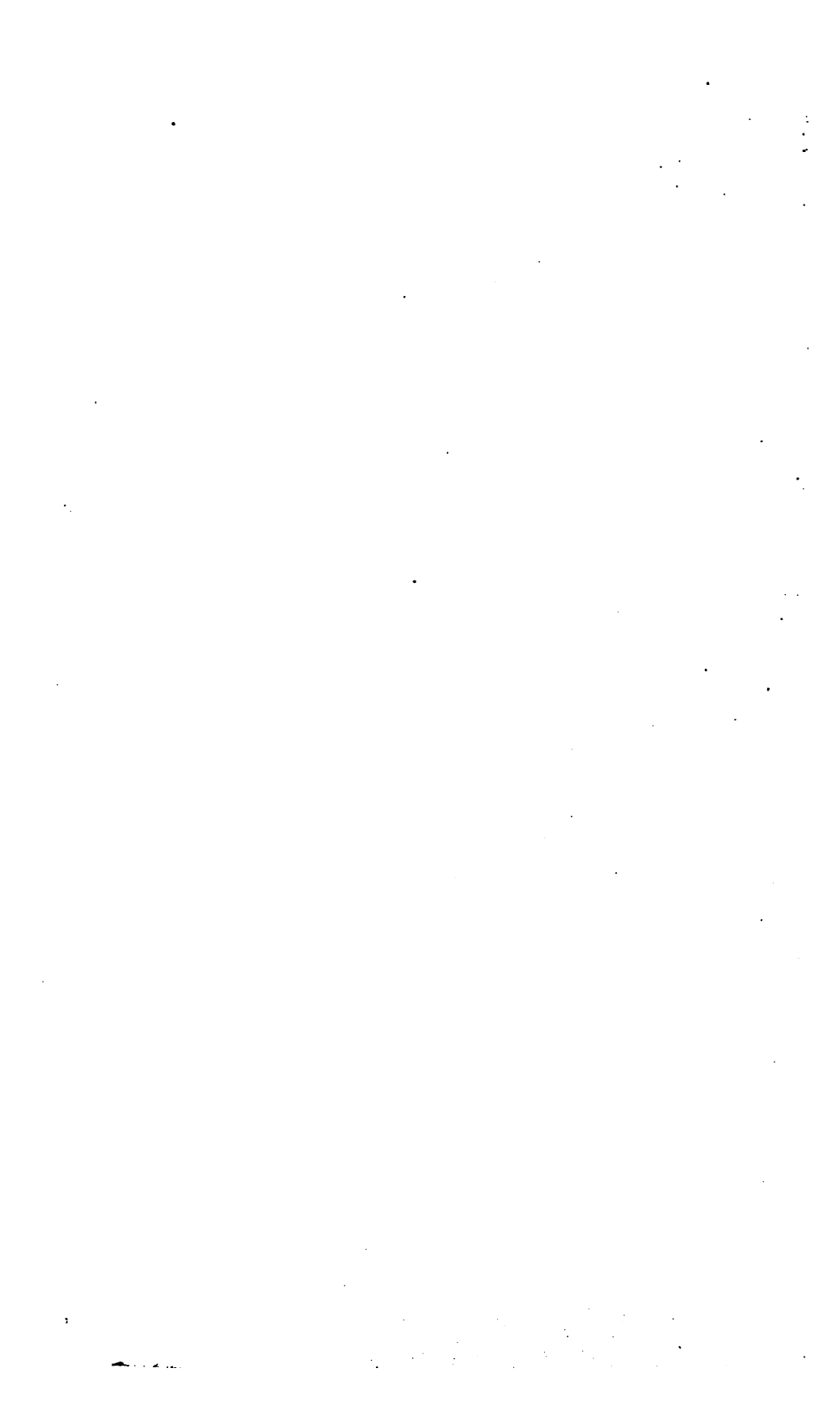
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1900.

Annual Report,

Somerville

Mystic

Water Board.

1897.



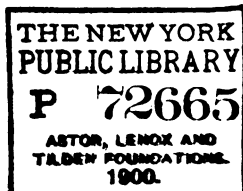
TWENTY-FOURTH
ANNUAL REPORT
OF THE
Somerville Mystic Water Board
OF THE
CITY OF SOMERVILLE,
MASSACHUSETTS,
FOR THE YEAR 1897.



SOMERVILLE JOURNAL PRINT.

1898.

a. H.



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CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 9, 1898.

Referred to the Committee on Printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk*.

IN COMMON COUNCIL, February 10, 1898.

Referred to the Committee on Printing, to be printed in the annual reports, in concurrence.

CHARLES S. ROBERTSON, *Clerk*.

SOMERVILLE MYSTIC WATER BOARD, 1897.

GEORGE D. WEMYSS, *President*.

GEORGE A. KIMBALL (term expires Dec. 31, 1897).
Residence, 33 Warren avenue.

WM. FRANKLIN HALL (term expires Dec. 31, 1898).
Residence, 345 Broadway.

GEORGE D. WEMYSS (term expires Dec. 31, 1899).
Residence, 5 Austin street.

CLERK OF THE WATER BOARD.

FRANK E. MERRILL.

SUPERINTENDENT OF EXTENSION AND RELAYING WATER MAINS.

NATHANIEL DENNETT.

OFFICE OF THE WATER DEPARTMENT.

Room 10, City Hall.

ENGINEER AT PUMPING STATION.

SIDNEY E. HAYDEN.

PUMPING STATION.

Cedar street, near Broadway.

Bills against the department should be rendered to the Clerk on or before the first day of each month, and are payable by the City Treasurer on the seventeenth of the month.

CITY OF SOMERVILLE.

OFFICE OF THE WATER BOARD, }
January 14, 1898. }

To HIS HONOR THE MAYOR AND THE CITY COUNCIL:—

The Somerville Mystic Water Board present herewith, for your consideration, the twenty-fourth annual report of the department in their charge, covering the operations of the year ending December 31, 1897.

The Board organized on the 8th of March by the re-election of George D. Wemyss as President, and Frank E. Merrill as Clerk of the Board. Mr. Merrill was made the executive officer of the department on March 12th, and his duties were extended to cover the care of the entire water works system; Mr. N. Dennett was placed in charge of the laborers in the construction and relaying of the water mains.

FINANCES.

COST OF WATER WORKS.

The total cost of the water works on December 31, 1896, was	\$684,608 76
Expended during the year 1897 on construction account	10,000 00
Total cost December 31, 1897	\$694,608 76

WATER DEBT.

The indebtedness of the city on account of the water works on December 31, 1896, was \$315,000; this debt has been reduced during 1897 by the payments of bonds, maturing July 1 and

October 1, to the amount of \$21,000; the indebtedness being now represented by bonds drawing interest as follows:—

\$241,000.00 at 4 per cent. per annum.

43,000.00 at 5 per cent. per annum.

10,000.00 at $5\frac{1}{2}$ per cent. per annum.

The income from water in 1897, being 50 per cent. of the amount collected by the city of Boston from sale of water in Somerville, and paid over to the City Treasurer of Somerville, was \$99,688 57

The disposition made of this income was as follows:—

Appropriated by the City Council for the use of the water department	\$66,000 00	
Applied to interest on water debt	12,930 00	
Applied to reduction of water debt	20,758 57	
		\$99,688 57

The following table, exhibiting the financial condition of the department from its first movements, is presented for reference and comparison:—

REPORT OF THE WATER BOARD.

7

YEAR.	Water Loan Bonds Issued on Funded Debt Account.	Reduction of Funded Debt by Payments of Water Loan Bonds.	Expenditures for Construction of Water Works.	*Revenue from Water Works.
1869	\$80,000 00		\$92,203 27	\$ 911 39
1870	60,000 00		66,546 50	1,907 63
1871	60,000 00		43,648 66	3,151 30
1872	90,000 00	\$50,000 00	43,288 33	3,719 91
1873	60,000 00	20,000 00	27,691 26	5,084 97
1874	15,000 00		34,294 06	6,818 20
1875	20,000 00		13,375 76	9,652 37
1876	70,000 00	60,000 00	6,409 49	10,268 06
1877	10,000 00		13,845 74	10,735 90
1878	30,000 00	30,000 00	514 13	11,584 89
1879			791 56	12,341 60
1880	60,000 00	60,000 00		12,999 79
1881	40,000 00	40,000 00		14,697 37
1882	90,000 00	90,000 00		19,354 28
1883	7,500 00	7,500 00		19,661 67
1884	20,000 00	20,000 00		20,085 95
1885	20,000 00	20,000 00		21,542 28
1886	55,500 00	55,500 00		21,444 91
1887	9,000 00	9,000 00		42,650 57
1888	25,000 00	96,500 00	19,338 89	50,419 07
1889	90,000 00	19,000 00	81,117 43	51,470 91
1890	55,000 00	13,000 00	53,411 79	55,879 72
1891	10,000 00	†11,000 00	40,708 48	60,150 80
1892	28,000 00	28,000 00	34,863 17	77,640 91
1893		17,000 00	35,545 30	78,459 73
1894		18,000 00	28,375 67	83,401 30
1895		19,000 00	32,007 44	89,431 46
1896	‡12,000 00	18,500 00	16,631 83	95,719 69
1897		21,000 00	10,000 00	99,688 57
	\$1,017,000 00	\$723,000 00	\$694,608 76	\$990,875 20

Total issue \$1,017,000 00

Total payments 723,000 00

Present water debt \$294,000 00

* From 1869 to 1886, inclusive, the basis of Somerville's water revenue was as follows: — The entire revenue from sale of water in Somerville was collected by the city of Boston and payments were made to this city on the following sliding scale: —

On annual receipts up to \$20,000.00, Somerville's proportion was 15 per cent.
 On annual receipts \$20,000.00 to \$30,000.00, Somerville's proportion was 20 per cent.
 " " \$30,000.00 to \$40,000.00 " " 25 "
 " " \$40,000.00 to \$50,000.00 " " 30 "
 " " exceeding \$50,000.00, Somerville's proportion was 40 per cent.

In 1887 the contract was changed so that Somerville should receive 60 per cent. of the revenue, and this contract is still in effect.

† In 1891 \$5,000.00 of Water Loan Bonds were cancelled, City Loan Bonds being substituted for them.

‡ Renewal.

In April the office of the Water Board was removed from the quarters which it has occupied since 1877 in the old buildings at the corner of Somerville avenue and Prospect street to the commodious apartments assigned by the City Council to its use in the City Hall. This brings this important municipal department into convenient communication with the other city officers with whom its business is intimately related, and is, thereby, an arrangement of mutual benefit, as well as a great convenience to the public who have occasion to transact business with the water department.

Commencing January 1st, all the work heretofore performed in the water income office in Boston, relating to the assessment and collection of the Somerville water rates, will be carried on in our own office, and our citizens will henceforth receive their water bills from this department, make payment of the same to our City Treasurer, and be enabled to transact any other business connected with the water works without the necessity of going to Boston for that purpose; a change which, we believe, will be appreciated.

METROPOLITAN WATER SUPPLY.

The introduction of the Metropolitan water and the abandonment of the Mystic supply for domestic uses was made on January 1st, and the problem of an abundant and pure water supply for Somerville is happily solved. Much credit is due to the men whose singular ability has been demonstrated by the practical completion on the appointed day of an enterprise of such magnitude. Somerville will rejoice in the changed conditions and in the removal of the prejudice which has, to some extent, prevailed against her as a residential city on account of the unfavorable quality of the Mystic water which it has been obliged to furnish for household purposes.

The cost to Somerville for the Metropolitan water is fixed by statute on a valuation and population basis, and the first assessment, comparatively light, will increase from year to year as the Metropolitan system of work progresses toward completion, it

being impossible, at this time, to state the maximum assessment which will be levied on this city.

WATER REVENUE.

By legislative enactment, the contract with the city of Boston for supplying Somerville with water was annulled on January 1st, 1898. Instead of dividing the annual receipts with Boston, the entire amount received from the sale of water in Somerville will hereafter accrue to this city. The disposition of this income is a matter which may produce a wide and honest difference of opinion. Provision is made in the Public Statutes, Section 21, Chapter 488, Acts of 1895, for the disposition of the water income in the following general manner:—

First: Payment of expenses of maintenance and operation of the works.

Second: Payment of maturing water bonds and interest requirements.

Third: The assessment levied by the Metropolitan water board.

Fourth: Expenses of the extension of the water works.

Fifth: The balance, if any, as the City Council may determine.

It is assumed that there will be no question as to the application of a sufficient portion of the income to fulfill the requirements of Sections 2 and 3, the amounts being, for 1898, as follows:—

Payment of bonds	\$22,000 00
Payment of interest	11,950 00
Payment of assessment (approximate)	14,400 00

Total	<u>\$48,350 00</u>
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It is, therefore, on the amounts to be appropriated by the City Council for the maintenance and extension of the water works and on the disposition of any balance that may remain that our special interest centres. On these points the Water Board desires to go on record as unanimously of the opinion that all water earnings

over and above the amount necessary for the payment of maturing bonds, interest, and the Metropolitan water assessment should be applied solely to the benefit of the water works, until such time as the system is so far renewed and perfected that the necessity for large expenditures ceases to exist. It is the equally firm opinion of the Board that, as soon as the present heavy requirements of the department have been fully met, the water-takers themselves should receive our first consideration, and a portion of the benefits arising from the changed conditions should be distributed in the form of a reduction in the water rates.

It is estimated that the water income in 1898 will be \$210,000; deducting for this the amount of \$48,350, the payments required during the year as noted above, there is left \$161,650, which should be devoted to water works purposes in the following general manner, viz., a sufficiently large appropriation should be made on water maintenance account for the removal of all the weak cement-lined mains in the city; the appropriation for construction account should be large enough to not only answer the necessary demands for extension of the distribution mains in the new building districts, but should also enable the department to complete the high service circulating system by connecting up the numerous dead ends now existing throughout the city, and which have been a source of discomfort to the many residents compelled for so long a time to obtain from them their household water supply; and the balance should be set aside as the nucleus of a fund to apply to the extinguishment of the water debt.

CEMENT-LINED MAINS.

The condition of the old cement mains in our streets is not only a source of annoyance and expense to the department, but a menace to the comfort and security of the entire city. In the month of July the Board, desiring to take advantage of the legislative Act of 1889 authorizing a bond issue on water works account, presented to the City Council an urgent request for an additional sum of \$25,000 to enable the department to replace the

TWENTY-FOURTH
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OF THE
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FOR THE YEAR 1897.



SOMERVILLE JOURNAL PRINT.

1898
a. h.

OFFICE OF THE WATER DEPARTMENT, }
December 31, 1897. }

TO THE SOMERVILLE MYSTIC WATER BOARD:—

Gentlemen,—Herewith I submit a statement of the condition of the Somerville water works at the close of the year 1897, tables showing the work performed during the year, and an outline of what should, in my opinion, be accomplished by the department during the coming season.

On March 12th the general care and supervision of the entire water works system of this city, as well as the clerical work of the department, was placed by you under my charge.

On the first day of April the office of the department was removed to spacious apartments on the ground floor of the remodeled City Hall, being the rooms formerly occupied by the City Engineer and City Treasurer. The offices have been suitably arranged and furnished for the accommodation of the largely increased clerical work of this department, resulting from the statutory annulment of the water contract between Somerville and Boston, which takes effect January 1st, 1898. Radical changes have been adopted in the system of accounts and in the methods heretofore in vogue in the assessment and collection of water rates, and, so far as they have been put into operation, the results have been very satisfactory. As the water charges are assessed in advance on January 1st, the clerical force of the department has already opened over ten thousand annual water accounts, and has prepared the consumers' bills for distribution. All necessary books, blanks, forms, etc., have been prepared for the proper transaction of the business connected with our new relations to the public, and it affords me much pleasure to be able to state that the work starts off very auspiciously and with no friction whatever.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 9, 1898.

Referred to the Committee on Printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 10, 1898.

Referred to the Committee on Printing, to be printed in the annual reports, in concurrence.

CHARLES S. ROBERTSON, *Clerk.*

<i>Amounts brought forward</i> .	\$10,000 00	\$20,000 00
Labor and materials used in extension of the water works .	10,000 00	
	\$20,000 00	\$20,000 00

WATER SERVICE ACCOUNT.

	Dr.	Cr.
321 water service assessments .		\$5,578 29
Collections for extra labor and material on above services .		36 31
Sundry charges, water service account	\$20 50	
Labor and materials used in water service construction .	4,791 67	
Balance transferred to water maintenance account . .	802 43	
	\$5,614 60	\$5,614 60

A large amount of work was rendered necessary by the laying of the 48-inch water mains of the Metropolitan system through our streets, as in almost every case the grade of the large pipe was such as to require the lowering of our side street connections and of many service pipes in the main streets. The work was thoroughly performed, and the entire expense incurred has been paid to this city by the Metropolitan water board. The 48-inch water mains of the Metropolitan water system enter Somerville in both the easterly and westerly sections of the city; one passing through Norfolk street, Webster avenue, Union square, Bow street, Walnut street, and Chauncey avenue, and the other crossing the city through Willow avenue. The easterly line is the only one at present completed, and is the one through which our city will at first obtain its supply of the Metropolitan water. Local connections have been established with these large mains at the following places: Webster avenue, near Prospect street,

20-inch; Pearl street, at Walnut street, 16-inch; Broadway, at Walnut street, 20-inch; Willow avenue, at Elm street, 12-inch; Willow avenue, at Broadway, 20-inch.

These connections will be sufficient to give us an abundance of water, but, in addition thereto, arrangements have been made for suitable connections with the Metropolitan high service system as soon as it shall be completed; by then placing the Clarendon-hill district on the high service, with a connection with the Metropolitan main at Professors' row, and the other elevated portions of the city being supplied with the high pressure as at present, by a connection at Broadway, near Cedar street, it would seem that there could be no question as to the completeness of the arrangements made to give to Somerville an unlimited water supply.

Early in April work was begun to complete the transfer to our own mains of the house services heretofore supplied with water by the city of Cambridge.

Two hundred and forty-one were thus transferred, bringing to our own treasury the water revenue accruing therefrom, amounting to \$3,784 yearly. Cambridge now furnishes water to fifteen houses in this city, and Somerville supplies water to sixteen houses in Cambridge; this is on account of the proximity of these houses to the mains of the other city.

STREET MAINS.

During the year the department has laid 7,573 feet of pipe on construction account and 14,409 feet in renewals of street mains, replacing the weakest of the cement-lined pipes. The total length of our distribution mains is now 77 miles 2,886 feet, of which 12 miles 1.055 feet is cement-lined pipe. The number of bursts in the older pipe is decreasing yearly, owing to the substitution of iron mains, there having been but ten bursts during the past year, none of which caused serious damage to property; ten joint leaks have been discovered and repaired; one crack in a 20-inch main appeared, although the pipe has been in service for five years.

I present herewith a list of the weakest water mains now in the city, all of which should, in my opinion, be replaced with cast-iron pipe during the coming season: Alston street, 575 feet; Ashland street, 525 feet; Belmont street, 1,200 feet; Broadway, from Magoun square to Willow bridge, 1,800 feet; Broadway, from Packard avenue to Alewife brook, 2,700 feet; Curtis street, 2,100 feet; Dane avenue, 600 feet; Elmwood street, 400 feet; George street, 325 feet; Holland street, 2,250 feet; Howe street, 450 feet; Jaques street, 500 feet; Lincoln avenue, 525 feet; Line street, 1,200 feet; Main street, 700 feet; Mt. Vernon street, 1,150 feet; Park street, 1,275 feet; Professors' row, 725 feet; Shawmut place, 225 feet; Shawmut street, 600 feet; Smith avenue, 225 feet; Temple street, 1,350 feet; Villa avenue, 200 feet; Vine street, 675 feet; Walnut street, 500 feet; Winslow avenue, 400 feet; Chester avenue, 700 feet; Cross street, 250 feet; a total of 24,125 feet.

Unless some of our extensive undeveloped tracts of land are opened up for residential purposes, the demand for extension of our distribution system for house service will probably not be as large as in previous years; advantage should be taken of this lull, however, and work should be assiduously continued on construction account in connecting up as many as possible of the numerous dead ends now existing in our system, and particularly in the high service district. The residents along many of our important and densely-settled thoroughfares are now compelled to receive their domestic water supply from these dead ends, and I earnestly recommend that additional mains be laid in the following streets for the purpose of perfecting the circulating system of our high water service: Medford street, from Norwood avenue to Adams street, 1,000 feet; Medford street, from Tennyson street to Dartmouth street, 950 feet; Central street, from Highland avenue to Summer street, 975 feet; Waldo street, 100 feet; Munroe street, 100 feet; Temple street, 450 feet; Bow street, from Summer street to Walnut street, 350 feet; Elm street, from Linden avenue to Belmont street, 1,450 feet; Beech street, 500 feet; Cedar street, from Highland avenue to Hudson street, 225 feet; Cross street, from Chester avenue to Medford street, 300 feet; a total of 6,400 feet. This

extension of the pipes will accomplish the removal of about three-fourths of the present dead ends, and vastly benefit those water-takers who live near and receive their water supply from them.

HYDRANTS—GATES, ETC.

Fifty-eight new hydrants have been set during the year on the line of new water mains and in locations designated by the chief of the Fire Department; there are now in the city 790 public hydrants, and forty owned by private interests; a total of 830. Each of the city hydrants has been carefully inspected and its water pressure recorded; wastes have been cleaned out, broken jackets repaired, gaskets replaced, and all have been painted and are now in excellent condition.

It has been found necessary to remove fourteen defective hydrants, one broken by team, and six for other reasons, and new ones have been set in their place.

Forty-eight new gates have been set in the lines of the water mains laid during the year and as section gates on old mains, making a total in the city of 971; ninety-two decayed wooden boxes have been replaced with the iron pattern.

Three blow-offs have been constructed; two water posts have been set for the benefit of the street watering department. Necessary repairs have been made on the water post connections, new valves and hose attached, and all the posts have been painted.

SERVICES.

Three hundred and twenty-one new service connections have been made during the year, this number being exclusive of those transferred to our mains from the Cambridge system. This represents a decrease of sixty-one from the number laid during the previous year, but indicates, nevertheless, great building activity in the face of the continued business depression. The total number of service pipes laid to December 31, 1897, is 9,601, and the total length of pipe used in making service connections is 60 miles 1,165 feet.

The service department has been kept busy in the maintenance of this division of the water works, a large number of service leaks having occurred, especially during the latter part of the year; in one day six leaks were reported and repaired, and the cause appeared to be the same in each case, viz., breaking of the pipe at the waste gate in the sidewalk. A careful examination of the broken parts showed the ends of the pipes entering the cocks to have been entirely eaten off by corrosion. The cause and manner of these breaks indicates the probability of a constantly-increasing frequency of this trouble on those services made up of plain iron pipe, cement-lined.

A considerable quantity of iron pipe with a lead lining has lately been used for service connections, its construction enabling the lining of lead to be sufficiently drawn out and beaded over the iron to form a perfect protection from the oxidizing action of the water, thereby effectually preventing the trouble above referred to, as well as the no less infrequent and annoying stoppage of water caused by the accumulation of rust and sediment in the pipe.

HIGH SERVICE.

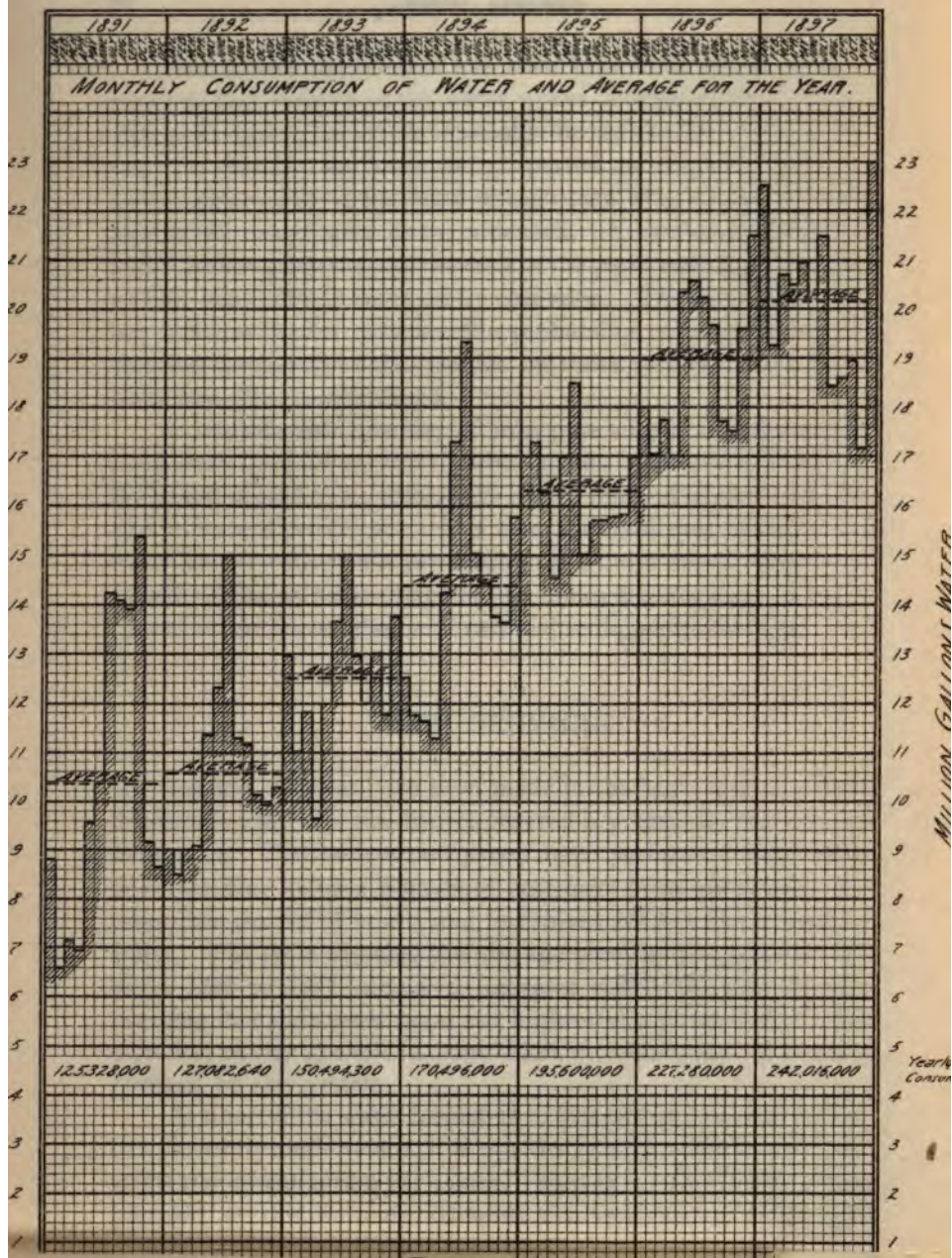
But few changes have been made in the high service system during the year, and the district covered is practically the same as heretofore. The boilers and pump have performed their usual good service; 795,045 pounds of coal have been consumed; the pump has run 2,710 hours, and has raised 242,016,000 gallons of water. The table showing the average monthly pumpage for the years 1890 to 1897, inclusive, indicates clearly the annually increasing demands made upon our high service plant, and is a fair criterion of the growth in population in the section of the city covered by this system.

As none of the water furnished to this city by the city of Boston passes through meters, it is practically impossible to ascertain our water consumption per capita. Having a record of the water pumped, we can, however, compute the consumption in the high



— SOMERVILLE WATER WORKS —

CHART SHOWING THE CONSUMPTION OF WATER IN THE DISTRICT SUPPLIED BY THE
SOMERVILLE HIGH SERVICE
ALSO THE
RAINFALL IN SOMERVILLE.



service district, and thereby approximate the consumption for the entire city. For the purpose of learning definitely what the daily average is, I have caused to be made a careful canvass of the number of inhabitants using water from the high service mains, and have arrived at the results expressed below:—

Total gallons of water pumped in high service in 1897	242,016,000
Total number of inhabitants using water from high service in 1897	8,746
Total consumption in gallons of high service water per inhabitant in 1897	27,672
Average daily consumption per capita on high service	76
Average daily consumption throughout the city (approximate), based on population of 56,000	4,256,000

As the portion of the city covered by the high service is almost entirely a residential district, the figures above given for the city consumption must be taken to represent the quantity used for domestic purposes only; the approximate consumption of metered water is 700,000 gallons daily additional, increasing the total consumption to about eighty-eight gallons per capita.

In December the standpipe was cut out of the system for about ten days, the pressure being maintained by direct pumping; during this time the inside of the standpipe was thoroughly cleaned and scraped, and treated to a good coat of asphaltum paint. I would recommend that the exterior be again painted early in the coming season.

The grounds about the standpipe have been regraded, the concrete walks removed and winding gravel walks constructed, flower beds have been maintained through the summer, and the small area has been generally improved; this has been preliminary to converting the grounds into a park, diminutive in size, but a distinct addition to the city's breathing places, and it is intended, as soon as the season opens, to remove the fences, set out shrubbery, and complete the work on the lines laid out.

METERS.

Anticipating the approaching control of the metered system of the water works, heretofore under the charge of the city of Boston, provision has been made at the pumping station for making all necessary repairs and tests. A testing apparatus has been set up which, it is believed, will compare favorably, for simplicity and efficiency, with the best in use in other cities. Both the high and low pressures are at command, and meters ranging in size from five-eighths of an inch to six inches can be tested on full streams. By an arrangement of the connections, meters can be run on durability tests for an indefinite length of time with no waste of water. A 5,000-pound Howe scale, with special percentage beam, and a steel tank of nearly 500 gallons capacity, are used to measure the water passed through the meters.

The entire plant has been laid out with an eye to a possible future establishment of a meter basis of selling water, and is on a scale which will answer such requirements for many years.

BUILDINGS.

The pumping station has been rewired and placed on the incandescent electric lighting circuit; new lamps have been added where needed, and a general rearrangement of the lighting service has been made.

The basement of the building, originally poorly lighted and used for a storeroom, has been thoroughly overhauled and converted into a workshop for the meter department of the water works. Four 18-inch windows have been replaced by others four feet in depth, affording an abundance of daylight; the walls have been whitened, the floor resurfaced, and the entire apartment adapted to the work to be performed.

The department has developed on its grounds at the high service station a very convenient pipe and supply yard; a railroad siding enables us to unload direct from the cars, and we can thus

purchase in car lots at bottom prices. Here are kept all the pipe, special castings, pig lead, hydrants, and valves used in the works. It is manifest that in the necessary communication between our stable and supply yard, shop and meter department, there is, under the existing arrangement, a large loss of time and energy. Our present shop and stable accommodations are not creditable to the department, and are inadequate to its needs. I would, therefore, urge the early concentration of these widely-separated departments of the works at our pumping station grounds, and the abandonment, for water works purposes, of the old buildings on Prospect street.

A suitable building should be constructed near the pipe yard for the storage of our wagons, and facilities for their proper care should be established therein. A portion of the building should be arranged for the storage of tools and small supplies, and for shop use, until such time as the pumping station may become fully available for this purpose. Aside from the matter of convenience, a considerable item of expense can be saved by thus concentrating our work at one point.

The following tables exhibit the year's street work of the water department; locations of hydrants connected with the works, cost of maintenance and repairs of the several divisions of the work, pumping statistics, etc.

Permit me to express my appreciation of the cordial co-operation which you have extended to me in the performance of my duties, and to acknowledge, also, the faithful and earnest efforts of my office assistants and of the laborers under my charge in all matters pertaining to the interests and efficiency of the department.

F. E. MERRILL.

LOCATION OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC., SET IN 1897.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		WATER POSTS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	
Appleton st.	Water post		2"	13	2"	1					1
Bolton st.	Hydrant		6"	20							
Boston ave.	Hydrant										
Boston ave.	Hydrant										
Broadway	Water post		2"	10	2"	1					1
Broadway	Living st.		9"	208							
Broadway	16' W. from Rogers ave.	Simpson ave.	12"	208	12"	1	Mathews.	1			
Broadway	Willow ave.	Willow ave.	12"	33	20"	1	Bigelow	1			
Broadway	Con. with Cedar st.	W. to dead end	28"	32	8"	1	Chapman.	1			
Broadway	Elm st.	E. to dead end	{ 12"	21							
Broadway	Dead end	Con. with Central st.	{ 20"	382	12"	1	Mathews.	1			
Browning road	Hydrant		6"	406	6"	1					
Browning road	Hydrant connection		6"	6			Mathews.	1			
Cameron ave.	Orchard st.	Dead end	2"	196	2"	1	Mathews.	1			
Chester st.	Hydrant		6"	7			Mathews.	1			
Clarendon ave.	Hydrant		6"	5			B. M.	1			
Clark st.	Con. with Webster ave.		16"	39							
Concord ave.	Newton st.	Marion st.	8"	541	8"	1	Mathews.	4			
Concord ave.	Hydrant		6"	26							
Concord ave.	Lowell st.	Tower st.	6"	229	6"	1	Mathews.	1			
Crown st.	Hydrant	Dead end	2"	23							
Cutter ave.	Orchard st.		{ 4"	106	2"	1	Mathews.	1			
Day st.	Hydrant connection.		{ 6"	5							
Fairlee st.	Beacon st.	Dead end	2"	129	2"	1					
Forest st.	Dead end	Con. with Willow ave.	10"	196	10"	1					
Fosket st.	Linden ave.	Dead end	6"	165	6"	1					
Gilson Terrace	Cameron ave.	Dead end	6"	252	6"	1					
Glendale ave.	Hydrant		6"	4			Mathews.	1			
Heath st.	Gate		10"		10"	2	Mathews.	1			
Heath st.	Hydrant		6"	11							
Highland ave.			6"				Mathews.	1			

LOCATION OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC. — *Continued.*

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		WATER POSTS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	
School st.	Section Gate	Dead end	12"	298	10"	1					
School st.	Gate		6"	6	10"	1	Mathews.	1			
Simpson ave.	Broadway				10"	1					
Simpson ave.	Hydrant				12"	1					
Stickney ave.	Gate				6"	1	Mathews.	2			
Tennynson st.	Dead end			70			Mathews.	3			
Tennynson st.	Hydrant			15							
Tennynson st.	Hydrant			18							
Thurston st.	Gate			12	6"	1					
Tower st.	Con. with Crown st.			8"	8"	1	Mathews.	2			
Tremont st.	Hydrant			9	6"	1	Chapman.	1			
Union square.	Hydrant			15	6"	1					
Walnut st.	Dead end	Medford st.		44	8"	1					
Walnut st.	Hydrant			9			Mathews.	1			
Waterhouse st.	Broadway	Dead end		792	8"	1					
Waterhouse st.	Hydrant			63			Mathews.	3			
Webster ave.	Gate			12			Mathews.	3			
Webster ave.	Main	Con. with glass-house pipe		15	20"	1					
Westminster st.	Dead end	Broadway		305	4"	1	Mathews.	1			
Westminster st.	Hydrant			6	6"						
Willow ave.	Dead end	Coß. with Fosket st.		125			Mathews.	1			
Willow ave.	Hydrant connection			8							
Willow ave.	Gate			7	12"	1	Chapman.	1			
Windom st.	Hydrant										
				7,573		48		58		9	4

LOCATION AND LENGTH OF PIPES RELAID, GATES AND HYDRANTS RESET, 1897.

NAME OF STREET.	FROM	TO	PIPE LAID.			GATES.				HYDRANTS.			
			Size.		Length.	Aband.	Reset.	No.	Size.	Kind.	Aband.	Reset.	No.
			Aband.	Relaid.									
Alpine st.	Hydrant		4"	6"	34						Bigelow.	Mathews.	1
Beacon pl.	Around sewer												
Beacon st.	Hydrant												
Broadway	Hydrant												
Cameron ave.	Hydrant	34' N. from Cambridge line									B. M. Chapman.	Mathews.	1
Chambers ave.	Hydrant connection		6"	10"	1,025								
Chauncey ave.	Con. with Broadway		4"	6"	11								
Clarendon ave.	Con. with Broadway		6"	12"	171								
Clark st.	Newton st.	Dead end	8"	8"	191								
Clark st.	Hydrant connection	Con. with 8" pipe	6"	10"	400								
Clark st.	Hydrant		4"	6"	5								
Concord ave.	Prospect st.	Beacon st.	6"	12"	2,000						B. M.	Mathews.	1
Concord ave.	Hydrant connection		4"	6"	32								
Congress pl.	Linwood st.	Dead end	1"	2"	108								
Crocker st.	Hydrant												
Davis square	Hydrant												
Gilman st.	Con. with Walnut st.												
Hawthorne st.	Hydrant		6"	10"	7								
Heath st.	Bond st.	Moreland st.											
Lamson court	Linwood st.	Dead end	4"	10"	732								
Main st.	Hydrant		1"	2"	134								
Maple ave.	School st.		4"	6"	3								
Marion st.	Con. with Concord ave.		4"	6"	353								
Medford st.	Central st.	Dead end	6"	8"	21								
Medford st.	Hydrant connection	Thurston st.	6"	12"	871								
McClure st.	Con. with Mystic ave.		4"	6"	8								
Mt. Vernon ave.	Heath st.		6"	6"	28								
Mystic ave.	Moreland st.	Dead end	2"	10"	100								
Newbury st.	4' 8" S. from Holland st.	22' E. from Temple st.	6"	12"	2,320								
Newbury st.	Hydrant connection	11' 6" N. from Cambridge line.	6"	8"	1,238								
Newton st.	Webster ave.	Dead end, near Emerson st.	4"-10"	6"	14								
Newton st.	Webster ave.	Under F. R. R. tracks	12"	16"	62						Chapman.	Mathews.	1

LOCATION AND LENGTH OF PIPES RELAID, GATES AND HYDRANTS RESET, 1897.—*Concluded.*

NAME OF STREET.	FROM	To	PIPE LAID.		GATES.				HYDRANTS.				
			Size.	Length.	Aband.	Reset.	A band.		Reset.				
							No.	Size.	No.	Kind.			
											No.	Kind.	
Newton st.	End of 16" pipe	Clark st.	4"	12"	116	4"	1						
Newton st.	Clark st.	Concord ave.	4"	8"	490	4"	1	6"	1				
Partridge ave.	Hydrant		6"	6"	3								
Pearl st.	Crossing Walnut st.		6"	12"	53	6"	1	12"	1	Coffin.	1	Mathews.	1
Preston st.	Hydrant		4"	6"	14					Chapman.	1	Mathews.	1
Prospect pl.	Con. with Newton st.		6"	6"	14								
Prospect st.	Con. with Newton st.		6"	20"	58					Chapman.	1	Mathews.	1
Richardson st.	Hydrant		4"	6"						Chapman.	1	Mathews.	1
Rush st.	Hydrant		6"	20"						B. M.	1	Mathews.	1
School st.	Medford st.	Evergreen ave.	6"	10"	896	6"	1	6"					
School st.	Hydrant connection		4"	6"	9					Holyoke.	1	Coffin.	1
Somerville ave.	Hydrant		4"	6"	13	6"	1	8"	1				
Somerville ave.	Con. with J. P. Squire & Co.		6"	6"	42	6"	1	8"	1	Coffin.	1	Mathews.	1
Somerville ave.	Hydrant		6"	8"						Chapman.	1	Coffin.	1
Stone ave.	Dead end	Con. with Mystic ave.	8"	12"	86					Chapman.	1	Mathews.	1
Temple st.	Hydrant												
Tennison st.	Broadway	S. to dead end	6"	6"	233	6"	1	6"	1				
Thurston st.	Hydrant connection	Medford st.	6"	6"	1,384								
Thurston st.	Hydrant		4"	6"	6								
Thurston st.	Hydrant connection		6"	6"									
Walnut st.	Pearl st.	Gilman st.	6"	10"	248	6"	1	10"	1	Chapman.	1	Mathews.	1
Walnut st.	Hydrant	Easterly.	6"	12"	18	6"	1	12"	1				
Washington st.	Newton st.	Con. 140' N. from Glass House ct.	6-14-16"	20"	638	6"	1	20"	1	Holyoke.	1	Mathews.	1
Webster ave.	Hydrant connection		4"	4"	6					B. M.	1	Mathews.	1
Wyatt st.	Con. with Concord ave.		4"	6"	43	4"	1	6"	1	B. M.	1	Holyoke.	1
Wyatt st.	Hydrant				14,409		19		17		21		21

HYDRANTS—CONSTRUCTION ACCOUNT.

New hydrants have been set in the following locations:—

- Bolton street, 3 feet south from Oak street, 6-inch Mathews.
- Boston avenue, 110 feet south from bridge over Mystic river, 4-inch Bigelow.
- Boston avenue, northwest side Chemical works, 6-inch Chapman.
- Broadway, 236 feet west from Liberty avenue, 6-inch Mathews.
- Browning road, 139 feet east from Central street, 6-inch Mathews.
- Cameron avenue, 161 feet south from Holland street, 6-inch Mathews.
- Clarendon avenue, 253 feet south from Broadway, 6-inch Mathews.
- Clark street, 412 feet west from Newton street, 4-inch Boston Machine.
- Concord avenue, junction Newton street, 6-inch Mathews.
- Concord avenue, 13 feet east from Marion street, 6-inch Mathews.
- Concord avenue, 13 feet south from Hammond street, 6-inch Mathews.
- Concord avenue, 154 feet west from Prospect street, 6-inch Mathews.
- Cutter avenue, 11 feet south from Highland avenue, 6-inch Mathews.
- Fairlee street, 134 feet west from Cherry street, 6-inch Mathews.
- Heath street, 100 feet west from Bond street, 6-inch Mathews.
- Highland avenue, 80 feet east from Vinal avenue, 6-inch Mathews.
- Highland avenue, 43 feet west from Lesley avenue, 6-inch Holyoke, compression.
- Houghton street, 82 feet west from Prospect street, 6-inch Mathews.
- Houghton street, 3 feet west from Bolton street, 6-inch Mathews.
- Kidder avenue, 342 feet east from Elm street, 6-inch Chapman.
- Lowell street, 51 feet north from Crown street, 6-inch Holyoke.
- Maple avenue, 296 feet east from School street, 6-inch Mathews.
- Medford street, 15 feet south from Walnut street, 6-inch Mathews.

- Medford street, 288 feet south from Walnut street, 6-inch Mathews.
- Montrose street, 10 feet east from Sycamore street, 6-inch Chapman.
- Mt. Vernon avenue, 39 feet south from Heath street, 6-inch Mathews.
- Mystic avenue, 42 feet north from Temple street, 6-inch Mathews.
- Mystic avenue, 548 feet south from Moreland street, 6-inch Mathews.
- Mystic avenue, 806 feet south from Moreland street, 6-inch Mathews.
- Newbury street, 260 feet west from Holland street, 6-inch Mathews.
- Newbury street, 477 feet east from Cambridge line, 6-inch Mathews.
- New Cross street, 110 feet north from Broadway, 6-inch Mathews.
- Newton street, 9 feet west from Joseph street, 6-inch Mathews.
- Newton street, 9 feet east from Clark street, 6-inch Mathews.
- Norfolk street, 27 feet south from Webster avenue, 6-inch Mathews.
- Norfolk street, 231 feet south from Webster avenue, 6-inch Mathews.
- Prospect street, 33 feet south from Concord avenue, 6-inch Mathews.
- Prospect street, 182 feet south from Oak street, 6-inch Mathews.
- Prospect street, 63 feet north from Houghton street, 6-inch Mathews.
- Simpson avenue, 272 feet south from Broadway, 6-inch Mathews.
- Tennyson street, 4 feet south from Medford street, 6-inch Mathews.
- Tennyson street, 117 feet north from Pembroke street, 6-inch Mathews.
- Thurston street, 187 feet north from Medford street, 6-inch Mathews.
- Thurston street, 444 feet north from Medford street, 6-inch Mathews.

Thurston street, 348 feet north from Evergreen avenue, 6-inch Mathews.
Tremont street, 9 feet south from Webster avenue, 6-inch Mathews.
Tremont street, 454 feet south from Webster avenue, 6-inch Mathews.
Union square, in the square, opposite Hill building, 6-inch Chapman.
Walnut street, 87 feet north from Gilman street, 6-inch Mathews.
Waterhouse street, 24 feet south from Broadway, 6-inch Mathews.
Waterhouse street, 322 feet south from Broadway, 6-inch Mathews.
Waterhouse street, 620 feet south from Broadway, 6-inch Mathews.
Webster avenue, 18 feet south from Prospect street, 6-inch Mathews.
Webster avenue, 3 feet north from Beach avenue, 6-inch Mathews.
Webster avenue, south corner of Columbia court, 6-inch Mathews.
Westminster street, 105 feet south from Electric avenue, 6-inch Mathews.
Willow avenue, 42 feet south from Fosket street, 6-inch Mathews.
Windom street, 7 feet south from Summer street, 6-inch Chapman.

HYDRANTS—RENEWAL ACCOUNT.

The following changes have been made in the kind and location of hydrants:—

Alpine street, 6-inch Mathews hydrant, set 280 feet east from Cedar street, to replace defective Bigelow hydrant removed from same location.
Beacon street, 6-inch Mathews hydrant, set 84 feet east from Harris street, to replace 4-inch B. M. hydrant removed from same location on account of defective valve.
Broadway, 6-inch Mathews hydrant, set 180 feet west from Wilson avenue, to replace Chapman hydrant removed from same location on account of bent rod.

- Clark street, 6-inch Mathews hydrant, set 200 feet west from Newton street, to replace defective B. M. hydrant removed from same location.
- Crocker street, 6-inch Mathews hydrant, set 4 feet north from Crown street, to replace Holyoke hydrant removed from same location on account of broken stem.
- Hawthorne street, 6-inch Pratt & Cady hydrant, set 10 feet east from Cutter avenue, to replace Pratt & Cady hydrant removed from 137 feet east from Cutter avenue.
- Holland street, 6-inch Mathews hydrant, set 42 feet west from Dover street, to replace Chapman hydrant removed from same location on account of bent rod.
- Main street, 6-inch Mathews hydrant, set 112 feet west from Mt. Vernon avenue, to replace 4-inch Bigelow hydrant removed from same location.
- Mystic avenue, 6-inch Mathews hydrant, set 244 feet east from Moreland street, to replace Chapman hydrant removed from same location.
- Partridge avenue, 6-inch Mathews hydrant, set 26 feet north from Medford street, to replace Coffin hydrant removed from same location.
- Preston street, 6-inch Mathews hydrant, set 375 feet west from School street, to replace defective Chapman hydrant removed from same location.
- Richardson street, 6-inch Mathews hydrant, set 12 feet west from Henderson street, to replace Chapman hydrant removed from same location on account of bent rod.
- Rush street, 6-inch Mathews hydrant, set 81 feet south from Pearl street, to replace B. M. hydrant removed from same location on account of defective valve.
- Somerville avenue, 6-inch Mathews hydrant, set 25 feet east from Franklin court, to replace Coffin hydrant removed from same location on account of bent rod.
- Somerville avenue, 6-inch Coffin hydrant, set 34 feet north from house No. 73, to replace Holyoke hydrant removed from same location.

Stone avenue, 6-inch Coffin hydrant, set 118 feet north from Washington street, to replace defective Chapman hydrant removed from same location.

Temple street, 6-inch Mathews hydrant, set 53 feet north from Jaques street, to replace Chapman hydrant removed from same location on account of bent rod.

Vernon street, 6-inch Mathews hydrant, set 75 feet west from Partridge avenue, to replace Chapman hydrant having bent rod.

Washington street, 6-inch Mathews hydrant, set 186 feet west from Dane street, to replace Holyoke hydrant broken by team.

Webster avenue, 6-inch Mathews hydrant, set 79 feet north from Prospect street, to replace 4-inch B. M. hydrant removed from 59 feet north from Prospect street.

Wyatt street, 6-inch Holyoke hydrant, set 324 feet east from Washington street, to replace B. M. hydrant having a broken yoke.

All hydrants have been carefully inspected and general repairs made at shop. Six hydrants have been returned to factory for repairs. All have been painted and are now in good condition.

Expense of maintenance and repairs of hydrants for inspection, labor and materials used in repairs, labor and materials in replacing hydrants, teaming, painting, etc., has been. \$1,769 09

Value of old hydrants removed. 245 00

Net cost \$1,524 09

RECAPITULATION.

Number of public hydrants set in 1897 . . .	79
“ “ private “ “ “ “ . . .	0
Total number of hydrants set in 1897 . . .	79
Number of hydrants removed in 1897 . . .	21
Net increase in number of public hydrants, 1897 . . .	58
“ “ “ “ “ private “ “ . . .	0
Total net increase in number of hydrants, 1897 . . .	58
Total number of public hydrants in the city . . .	790
“ “ “ private “ “ “ “ . . .	40
Total number of all hydrants in the city January 1, 1897	830

LOCATION OF HYDRANTS, DECEMBER 31, 1897.

Adams street, corner of Broadway.	Auburn avenue, 239 feet west of Cross street.
Adams street, 240 feet south of Broadway.	Auburn avenue, 519 feet west of Cross street.
Adams street, 300 feet north of Medford street.	Austin street, 82 feet south of Mystic avenue.
Adams street, 10 feet north of Medford street.	Austin street, 66 feet north of Benedict street.
Adrian street, 106 feet east of Marion street.	Austin street, corner Broadway.
Adrian street, 220 feet south of Joseph street.	Avon street, 233 feet east of Central street.
Allen street, 9 feet north of Charlestown street.	Avon street, 585 feet west of School street.
Albion street, 78 feet west of Central street.	
Albion street, 312 feet west of Central street.	Banks street, 310 feet south of Summer street.
Albion street, 234 feet east of Lowell street.	Bartlett street, 230 feet south of Broadway.
Albion street, 421 feet east of Cedar street.	Bartlett street, 15 feet south of Ames street.
Aldersey street, 200 feet west of Walnut street.	Bartlett street, 10 feet south of Robinson street.
Alpine street, 280 feet east of Cedar street.	Beacon street, 300 feet east of west end of street.
Alpine street, 670 feet east of Cedar street.	Beacon street, 84 feet east of Harris street.
Alpine street, 299 feet west of Lowell street.	Beacon street, 46 feet west of Sacramento street.
Allston street, 12 feet west of Shawmut place.	Beacon street, 15 feet west of Kent street.
Ames street, 133 feet west of Central street.	Beacon street, corner of Ivaloo street.
Appleton street, corner of Clifton street.	Beacon street, 72 feet east of Park street.
Appleton street, 39 feet west of Willow avenue.	Beacon street, 22 feet east of Durham street.
Arthur street, 29 feet south of Broadway.	Beacon street, 35 feet east of Washington street.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Beacon street, 219 feet west of Cooney street.	Bonair street, 121 feet east of Arthur street.
Beacon street, opposite Cooney street.	Bonair street, 67 feet east of Dana street.
Beacon street, 222 feet west of Buckingham street	Bonair street, opposite Melvin street.
Beacon street, corner Concord avenue.	Bonair street, 117 feet east of Walnut street.
Beech street, 4 feet south of Atherton street.	Bonner avenue, opposite Homer square.
Beech street, 31 feet east of Spring street.	Boston avenue, 110 feet south from bridge over Mystic river.
Belmont street, 554 feet south of Highland ave.	Boston avenue, northwest side Chemical works.
Belmont street, 228 feet north of Pitman street.	Boston street, 90 feet west of Bigelow street.
Belmont street, 255 feet north of Summer street.	Boston street, 213 feet east of Bigelow street.
Benedict street, 34 feet east of Mystic street.	Boston street, 4 feet north of High street.
Bennett street, 150 feet east from Prospect street.	Bow street, 125 feet west of Union square.
Berkeley street, 8 feet east of Central street.	Bow street, junction of Summer street.
Berkeley street, 213 feet east of Hersey street.	Bow street, opposite Bow Street place.
Berkeley street, 28 feet west of School street.	Bowdoin street, 68 feet north of Fremont avenue.
Berkeley street, 212 feet west of Hersey street.	Bradley street, 26 feet south of Veazie street.
Billingham street, 129 feet north of William st.	Brastow avenue, 202 feet east of Porter street.
Bolton street, 203 feet north of Houghton street.	Brastow avenue, 115 feet west from Lowell st.
Bolton street, 3 feet south from Oak street.	Broadway, 50 feet east of Mt. Pleasant street.
Bonair street, 26 feet west of Cross street.	Broadway, 28 feet west of George street.
Bonair street, 95 feet east of Autumn street.	

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Broadway, 21 feet west of Broadway place.	Broadway, 180 feet west of Wilson avenue.
Broadway, corner of Glen street.	Broadway, 236 feet west from Liberty avenue.
Broadway, corner of Rush street.	Broadway, 172 feet west of Elm street.
Broadway, 15 feet west of Cross street.	Broadway, corner Billingham street.
Broadway, corner Autumn street.	Broadway, 40 feet west of Packard avenue.
Broadway, corner Montgomery avenue.	Broadway, 180 feet east of Endicott avenue.
Broadway, 33 feet west of Walnut street.	Broadway, 175 feet east of North street.
Broadway, corner Sargent avenue.	Broadway, 415 feet west of North street.
Broadway, corner Melvin street.	Broadway, east corner Mt. Vernon street.
Broadway, 174 feet east of Grant street.	Broadway, west corner Franklin street.
Broadway, 117 feet east of Marshall street.	Broadway Park, near the pond.
Broadway, opposite Marshall street.	Brook street, 18 feet west of Rush street.
Broadway, corner School street.	Browning road, 302 feet west of Sycamore street.
Broadway, opposite School street.	Browning road, 139 feet east from Central street.
Broadway, corner Thurston street.	Buckingham street, west corner of Dimick st.
Broadway, 240 feet east of Central street.	Burnside avenue, 259 feet north of Elm street.
Broadway, 13 feet west of Norwood avenue.	Burnside avenue, 120 feet south of Summer st.
Broadway, 324 feet west of Hinckley street.	
Broadway, 424 feet west of Hinckley street.	Cameron avenue, 161 feet south from Holland st.
Broadway, opposite Cedar street.	Cameron avenue, opposite Mead street.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Cameron avenue, 438 feet south of Mead street.	Charnwood road, 100 feet east of Gordonia road.
Campbell park, 255 feet west of Meacham street.	Chauncey avenue, 9 feet north of Jaques street.
Cedar street, 289 feet north of Elm street.	Cherry street, 7 feet south of Sartwell avenue.
Cedar street, 90 feet north of Sartwell avenue.	Cherry street, 254 feet north of Sartwell avenue.
Cedar street, 50 feet north of Hall street.	Cherry street, 250 feet north of Summer street.
Cedar street, 14 feet north of Highland avenue.	Cherry street, 26 feet south of Highland avenue.
Cedar street, 14 feet north of Albion street.	Chester street, 15 feet north of Chester place.
Cedar street, 124 feet south of Warwick street.	Chestnut street, 538 feet south of Poplar street.
Cedar street, 50 feet north of Clyde street.	Chestnut street, 246 feet south of Poplar street.
Cedar street, 24 feet south of Murdock street.	Church street, 9 feet south of Summer street.
Cedar street, 270 feet south of Broadway.	Church street, 327 feet south of Summer street.
Central street, 75 feet south of Broadway.	Church street, 29 feet north of Somerville ave.
Central street, 6 feet north of Forster street.	Church street, 16 feet south of Somerville ave.
Central street, 9 feet north of Vernon street.	City stables, east end of yard.
Central street, 200 feet south of Vernon street.	Claremont street, 252 feet south of Holland street.
Central street, 8 feet north of Albion street.	Clarendon avenue, 253 feet south from Broadway.
Central street, corner Summer street.	Clarendon ave., at Cambridge city ledge (so. side).
Chandler street, 16 feet south of Broadway.	Clark street, 200 feet west of Newton street.
Chandler street, 216 feet north of Park avenue.	Clark street, 412 feet west from Newton street.
Charles street, 183 feet south of Washington st.	Clyde street, 254 feet east from Cedar street.

Clyde street, south corner of Murdock street.	Craigie street, 555 feet south of Summer street.
Columbia street, 3 feet south of Beach avenue.	Craigie street, 126 feet north of Somerville ave.
Columbia street, 8 feet south of Columbia court.	Crescent street, opposite Hadley street.
College avenue, 700 feet north of Broadway.	Crocker street, corner Highland avenue.
Columbus avenue, 150 feet east of Bonner ave.	Crocker street, corner Crown street.
Columbus avenue, 123 feet west of Bonner ave.	Cross street, corner Otis street.
Columbus avenue, 35 feet west of Stone avenue.	Cross street, 6 feet north of Pearl street.
Columbus avenue, 8 feet east of Walnut street.	Cross street, 32 feet north of Cross Street place.
Concord avenue, 154 feet west from Prospect st.	Cross street, 62 feet north of Flint street.
Concord avenue, 90 feet east of Concord square.	Cross street, 16 feet north of Gilman street.
Concord avenue, junction Newton street.	Cross street, 13 feet south of Auburn avenue.
Concord avenue, opposite Knapp schoolhouse.	Cross street, opposite Chester avenue.
Concord avenue, 30 feet east of Springfield st.	Curtis street, 146 feet north of Professors' row.
Concord avenue, 13 feet east from Marion street.	Curtis street, opposite Raymond avenue.
Concord avenue, 13 feet south from Hammond st.	Curtis street, 100 feet north of Fairmount avenue.
Concord avenue, 20 feet east of Wyatt street.	Cutter avenue, 11 feet south from Highland ave.
Conwell avenue, 465 feet west of Curtis street.	Cutter square, north side.
Cook street, 74 feet north of Wyatt street.	Cutter street, 290 feet south of Broadway.
Cottage avenue, 150 feet east of Russell street.	
Craigie street, 216 feet south of Summer street.	Dane street, 9 feet north of Tyler street.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Dane street, 112 feet south of Skehan street.	Elm street, 56 feet west of Craigie street.
Dane street, 55 feet north of Skehan street.	Elm street, west corner Porter street.
Dane court, 510 feet east of Dane street.	Elm street, 28 feet east of Linden avenue.
Dartmouth street, 312 feet south of Broadway.	Elm street, 11 feet east of Mossland street.
Dartmouth street, 57 feet south of Evergreen ave	Elm street, 9 feet west of Cedar street.
Dartmouth street, 180 feet north of Medford st.	Elm street, 153 feet east of Cherry street.
Day street, 3 feet south of Davis square.	Elm street, 110 feet west of Cherry street.
Day street, 100 feet south of Herbert street.	Elm street, 14 feet east of Burnside avenue.
Day street, corner Orchard street.	Elm street, 101 feet east of Willow avenue.
Dell street, 275 feet west of Glen street.	Elm street, east corner St. James avenue.
Delaware street, 270 feet east of Aldrich street.	Elm street, west corner Elston street.
Derby street, 399 feet east of Beacon street.	Elm street, opposite Tenney street.
Dickinson street, 12 feet east of Beacon street.	Elm street, 25 feet west of Russell street.
Dover street, 205 feet south of Davis square.	Elm street, 18 feet west of Grove street.
Dover street, 129 feet south of Glover circle.	Elm street, 86 feet west of Chester street.
Dover street, 3 feet north of Orchard street.	Elm street, 10 feet north of Winter street.
Durham street, 54 feet south of Hanson street.	Elm street, 6 feet south of Morrison street.
Edmands street, 15 feet south of Broadway.	Elm street, 69 feet south of William street.
Ellsworth street, corner Rush street.	Elm street, opposite Kenwood street.
	Elm street, corner Broadway.

Elmwood street, 450 feet south of Holland street.	Florence street, corner Pearl street.
Eliot street, corner Park street.	Florence street, 486 feet north of Washington st.
Endicott avenue, 430 feet south of Broadway.	Forster street, opposite Tennyson street.
Evergreen avenue, 8 feet east of School street.	Fosket street, corner Bay State avenue.
Everett avenue, corner Cross street.	Francesca avenue, 305 feet east of Elm street.
Everett avenue, 200 feet east of Dana street.	Francesca avenue, 7 feet west of Liberty avenue.
Everett avenue, 449 feet west of Cross street.	Franklin street, 14 feet north of Arlington street.
Everett street, opposite Emerson street.	Franklin street, 80 feet south of Webster street.
Fairlee street, 134 feet west from Cherry street.	Franklin street, 165 feet south of Pearl street.
Fairmount avenue, 590 feet west of Curtis street.	Franklin street, 87 feet south of Oliver street.
Farragut avenue, 258 feet south of Broadway.	Franklin street, 96 feet south of Palmer avenue.
Farragut avenue, 550 feet south of Broadway.	Franklin street, 29 feet north of Washington st.
Fenwick street, 40 feet north of Broadway.	Fremont street, 86 feet north of Main street.
Fiske avenue, 126 feet east of Hinckley street.	Fremont street, 350 feet north of Main street.
Fitchburg street, 400 feet east of Linwood street.	Fremont street, 285 feet north of Meacham st.
Flint street, 18 feet east of Flint avenue.	Fremont street, 22 feet north of E. Albion street.
Flint street, 59 feet east of Cross street.	Frost avenue, opposite American Tube Works.
Flint street, 30 feet west of Franklin street.	Fountain avenue, 280 feet west of Glen street.
Florence street, 222 feet south of Perkins street.	Garden court, 475 feet south of Somerville ave.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Garfield avenue, 22 feet south of Mystic avenue.
 Gibbens street, 206 feet west of Central street.
 Gibbens street, 129 feet west of Benton avenue.
 Gilman square, southeast side.
 Gilman street, 100 feet east of Walnut street.
 Gilman street, 261 feet west of Aldrich street.
 Gilman street, 8 feet west of Aldrich street.
 Gilman street, 180 feet east of Aldrich street.
 Gilman street, 293 feet west of Cross street.
 Glen street, 147 feet south of Broadway.
 Glen street, 9 feet north of Brook street.
 Glen street, 6 feet north of Webster street.
 Glen street, corner Flint street.
 Glen street, corner Fountain avenue.
 Gorham street, 307 feet south of Holland street.
 Gorham street, corner Howard street.
 Grand View avenue, 288 feet east of Vinal ave.
 Grant street, corner Derby street.
 Greene street, 200 feet south of Summer street.
 Greenville street, 148 feet north of Boston street.

Greenville street, 33 feet north of High street.
 Hall avenue, 310 feet east of Elm street.
 Hall avenue, 306 feet west from Liberty avenue.
 Hall avenue, 9 feet west of Liberty avenue.
 Hamlet street, 321 feet south of Highland avenue.
 Hammond street, 30 feet west of Dickinson st.
 Hancock street, 258 feet south of Summer street.
 Hanson street, 40 feet north of Skehan street.
 Harvard street, 13 feet north of Beech street.
 Harvard street, 23 feet north of Harvard place.
 Harrison street, 100 feet east of Kent street.
 Harrison street (Ward 4), corner Elmwood st.
 Hawkins street, 50 feet east of Lake street.
 Hawthorne street, 10 feet east from Cutter ave.
 Hawthorne street, 340 feet west of Willow ave.
 Heath street, corner Temple street.
 Heath street, 51 feet west of Temple street.
 Heath street, 320 feet west of West street.
 Heath street, corner Bond street.

Heath street, 100 feet west from Bond street.	Highland avenue, corner Eastman place.
Heath street, corner Fenwick street.	Highland avenue, 36 feet east of Fanning avenue.
Heath street, corner Moreland street.	Highland avenue, 43 feet west from Lesley ave.
Henderson street, 159 feet north of Wilton st.	Highland avenue, corner Willow avenue.
Herbert street, 192 feet east of Day street.	Highland avenue, 6 feet west of Grove street.
High street, 300 feet west of Boston street.	Highland avenue, 218 feet west of Grove street.
Highland avenue, corner Medford street.	Highland avenue, 64 feet east of Elm street.
Highland avenue, corner Walnut street.	Holland street, 42 feet west of Dover street.
Highland avenue, 260 feet west of Walnut street.	Holland street, 36 feet east of Winter street.
Highland avenue, 80 feet east from Vinal avenue.	Holland street, 105 feet west of Irving street.
Highland avenue, 41 feet east of Putnam street.	Holland street, 77 feet east of Elmwood street.
Highland avenue, 47 feet west of Prescott street.	Holland street, 117 feet west of Cameron avenue.
Highland avenue, 114 feet west of School street.	Holland street, 80 feet east of Newbury street.
Highland avenue, 410 feet west of School street.	Homer square, west side of square.
Highland avenue, 115 feet west of Trull lane.	Houghton street, 82 feet west from Prospect st.
Highland avenue, 171 feet east of Central street.	Houghton street, 3 feet west from Bolton street.
Highland ave., 32 feet west of Spring Hill terrace.	Houghton street, 200 feet east of Springfield st.
Highland avenue, 28 feet west of Belmont street.	Hudson street, 9 feet east of Waldo street.
Highland avenue, 180 feet west of Lowell street.	Hudson street, opposite Benton avenue.
Highland avenue, corner Porter street.	Hudson street, 292 feet east of Lowell street.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Hudson street, 384 feet west of Lowell street.	Joy street, 36 feet south of Washington street.
Hudson street, 8 feet east of Porter street.	Joy street, 440 feet south of Washington street.
Ibbetson street, 250 feet north of Somerville ave.	Joy street, 285 feet north of Poplar street.
Ibbetson street, 521 feet north of Somerville ave.	Kensington avenue, corner Broadway.
Irving street, 6 feet south of Broadway.	Kent court, 285 feet west of Kent street.
Irving street, 300 feet south of Broadway.	Kidder avenue, 342 feet east from Elm street.
Irving street, 537 feet north of Holland street.	Kingman court, 300 feet south of Washington st.
Irving street, 183 feet north of Holland street.	Kingston street, 402 feet west of Meacham st.
James street, 100 feet north of Pearl street.	Knowlton street, opposite Morton street.
Jaques street, 9 feet north of Grant street.	Lake street, 205 feet west of Hawkins street.
Jaques street, 362 feet east of Temple street.	Lake street, corner Carlton street.
Jaques street, 190 feet west of Temple street.	Laurel street, 300 feet south of Summer street.
Jaques street, 300 feet east of Bond street.	Laurel place, 8 feet north of Park place.
Jay street, 90 feet north of Howard street.	Lawrence street, 9 feet south of Richardson st.
Jenny Lind avenue, corner Vernon street.	Lexington avenue, corner Fanning avenue.
Jenny Lind avenue, 220 feet south of Broadway.	Lincoln street, opposite Arlington street.
Jenny Lind avenue, 16 feet north of Vernon st.	Lincoln avenue, 224 feet west of Mt. Vernon st.
Jenny Lind avenue, 467 feet north of Vernon st.	Linden street, 33 feet north of Charlestown st.

Linden street, 557 feet north of Somerville ave.	Main street, corner Moreland street.
Linden avenue, 243 feet north of Elm street.	Mansfield street, 200 feet north of Somerville ave.
Linden avenue, 550 feet north of Elm street.	Mansfield street, 200 feet south of Washington st.
Linden avenue, 30 feet north of Olive avenue.	Maple avenue, 296 feet east from School street.
Line street, 500 feet west of Cooney street.	Maple street, 220 feet east of Medford street.
Linwood street, 416 feet south of Washington st.	Maple street, 9 feet north of Poplar street.
Linwood street, 225 feet north of Poplar street.	Marshall street, 94 feet north of Gilman square.
Linwood street, 55 feet south of London street.	Marshall street, 30 feet north of Stickney ave.
Linwood street, corner Linwood place.	Marshall street, opposite Howe street.
London street, 400 feet east of Linwood street.	Marshall street, corner Evergreen avenue.
Loring street, 273 feet north of Somerville ave.	Marshall street, 104 feet south of Mortimer place.
Lowell street, corner Fiske avenue.	Marshall street, 200 feet south of Broadway.
Lowell street, 195 feet south of Richardson st.	Malloy court, 16 feet south of Somerville avenue.
Lowell street, opposite Vernon street.	Meacham street, corner of Orchard street.
Lowell street, 3 feet south of Princeton street.	Meacham street, 50 feet south of Glover circle.
Lowell street, 51 feet north from Crown street.	Meacham street, at Lowell railroad fence line.
Lowell street, 665 feet south of Summer street.	Meacham street, 13 feet west of Moreland street.
Madison street, 480 feet west of School street.	Mead street, 48 feet east from Clarendon street.
Main street, 116 feet west of Mt. Vernon avenue.	Medford street, junction Broadway.
	Medford street, 14 feet north from Jenny Lind ave.

LOCATION OF HYDRANTS, DECEMBER 31, 1887. — *Continued.*

Medford street, 16 feet from corner Central st.	Medford st., 80 ft. southeast of Grand Junc. R. R.
Medford street, 16 feet south from Sycamore st.	Melrose street, 600 feet north from Mystic ave.
Medford street, 46 feet south from Thurston st.	Merriam street, 42 feet north of Charlestown st.
Medford street, corner School street.	Miner street, 142 feet north of Vernon street.
Medford street, junction Pearl street.	Minnie avenue, 300 feet north of Meacham st.
Medford street, 15 feet south from Walnut st.	Mondamin court, junction Harrison street.
Medford street, 288 feet south from Walnut st.	Montrose street, 10 feet east from Sycamore st.
Medford street, 8 feet south from Greenville st.	Montrose street, 417 feet west of School street.
Medford st., 13 feet north from Prospect-hill ave.	Moore street, 21 feet north of Mead street.
Medford street, 34 feet south of Central square.	Moore street, 22 feet south of Holland street.
Medford street, opposite Chester avenue.	Moore street, 332 feet south of Holland street.
Medford street, 236 feet south of Washington st.	Moreland street, 345 feet north of Meacham st.
Medford street, 78 feet north of Maple street.	Moreland street, corner East Albion street.
Medford street, 21 feet north of Somerville ave.	Morrison street, 13 feet west of Newberne street.
Medford street, 98 feet north of Fitchburg R. R.	Morrison street, 195 feet west of Clifton street.
Medford street, 70 feet south of Fitchburg R. R.	Morrison street, 33 feet west of Grove street.
Medford street, 30 feet north of Ward street.	Mossland street, 112 feet north of Somerville ave.
Medford street, 91 feet south of Ward street.	Munroe street, 206 feet east of Walnut street.
Medford street, 93 feet north of Warren street.	Murdock street, 200 feet east of Cedar street.
Medford street, 17 feet south of Warren street.	Murdock street, 263 feet north of Clyde street.

Mt. Vernon avenue, 200 feet north of Heath st.	Newbury street, 965 feet west from Holland st.
Mt. Vernon avenue, 39 feet south from Heath st.	Newbury st., 477 feet east from Cambridge line.
Mt. Vernon street, 9 feet north of Pearl street.	New Cross street, 110 feet north from Broadway.
Mt. Vernon street, 7 feet south of Perkins street.	Newton street, 9 feet west from Joseph street.
Mt. Vernon street, corner Broadway.	Newton street, 9 feet east from Clark street.
Mt. Pleasant street, 276 feet south of Broadway.	Norfolk street, corner of Webster avenue.
Myrtle street, 418 feet north of Washington st.	Norfolk street, 27 feet south from Webster ave.
Myrtle street, 82 feet south of Pearl street.	Norfolk street, 231 feet south from Webster ave.
Mystic avenue, opposite Tenney court.	North street, 440 feet north of Raymond avenue.
Mystic avenue, corner Union street.	North st., 190 feet north of city bound No. 19.
Mystic avenue, 200 feet north of No. Union st.	North Union street, 300 feet north of Mystic ave.
Mystic avenue, 42 feet north from Temple st.	
Mystic avenue, 548 feet south from Moreland st.	Oak street, 8 feet west of Prospect street.
Mystic avenue, 806 feet south from Moreland st.	Oak street, 390 feet west of Prospect street.
Mystic avenue, near Medford line.	Oak street, 315 feet north of Houghton street.
Mystic street, 160 feet south of Washington st.	Oakland avenue, 230 feet west of Marshall st.
	Oliver street, 183 feet east of Cross street.
Nashua street, 215 feet south of Wilton street.	Oliver street, 15 feet east of Glen street.
Newbury street, 260 feet west from Holland st.	Oliver street, 7 feet west of Franklin street.
Newbury street, 570 feet west from Holland st.	Orchard street, 9 feet west of Russell street.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

• Orchard street, corner Mason avenue.	Pearl street, corner Pinckney street.
Orchard street, 9 feet east of Chester street.	Pearl street, 69 feet west of Hillside avenue.
Otis street, 440 feet west of Cross street.	Pearl street, 18 feet east of Delaware street.
Otis street, 9 feet east of Dana street.	Pearl street, 9 feet west of Glen street.
Otis street, 6 feet east of Wigglesworth street.	Pearl street, 30 feet west of Dana street.
Oxford street, 358 feet west of School street.	Pearl street, corner Wigglesworth street.
Oxford street, 100 feet west of Hersey street.	Pearl street, corner Walnut street.
Park avenue, 90 feet west of Elm street.	Pearl street, 120 feet east of Marshall street.
Park avenue, 10 feet west of Chandler street.	Perkins street, opposite Myrtle street.
Park street, 69 feet north of Fitchburg R. R.	Perkins street, opposite Lincoln street.
Park street, 155 feet north of Beacon street.	Perkins street, 24 feet east of Pinckney street.
Partridge avenue, corner Broadway.	Perkins street, 63 feet east of Perkins place.
Partridge avenue, 26 feet north of Medford st.	Perkins street, 21 feet east of Mt. Pleasant st.
Partridge avenue, 126 feet south of Medford st.	Pinckney street, 11 feet north of Washington st.
Partridge avenue, 450 feet south of Medford st.	Pinckney street, 345 feet south of Pearl street.
Partridge avenue, 290 feet north of Vernon street.	Pinckney street, opposite Wheeler street.
Paulina street, 184 feet north of Holland street.	Pinckney street, 71 feet south of Pearl street.
Paulina street, 288 feet south of Broadway.	Pleasant avenue, 290 feet east of Vinal avenue.
Paulina street, 5 feet south of Broadway.	Prescott street, 326 feet south of Highland ave.
	Prescott street, 582 feet south of Highland ave.

Prescott street, 257 feet north of Summer street.
 Preston street, 375 feet west of School street.
 Poplar street, 21 feet west of Joy street.
 Porter street, corner Mountain avenue.
 Porter street, 282 feet south of Summer street.
 Porter street, 24 feet north of Williams court.
 Porter street, 8 feet north of Parker place.
 Professors' row, 277 feet east of College avenue.
 Professors' row, 140 feet west of College avenue.
 Professors' row, 300 feet west of College ave.
 Professors' row, 580 feet west of College avenue.
 Professors' row, 188 feet east of Packard avenue.
 Professors' row, 305 feet west of Packard avenue.
 Prospect Hill avenue, 9 feet north of High street.
 Prospect street, 135 feet north of Bennett street.
 Prospect street, corner Webster avenue.
 Prospect street, 33 feet south from Concord ave.
 Prospect street, 182 feet south from Oak street.
 Prospect street, 210 feet south of Oak street.
 Prospect street, 63 feet north from Houghton st.

Prospect street, 286 feet north of Houghton st.
 Putnam street, 116 feet south of Highland ave.
 Putnam street, 425 feet south of Highland ave.
 Putnam street, 608 feet north of Summer street.
 Putnam street, 308 feet north of Summer street.
 Quincy street, 315 feet south of Summer street.
 Quincy street, corner Somerville avenue.
 Richardson street, 12 feet west of Henderson st.
 Richdale avenue, opposite Thurston street.
 Robinson street, 333 feet west of Central street.
 Rogers avenue, 300 feet north of Morrison ave.
 Rossmore st., 260 feet south of Washington st.
 Rush street, 81 feet south of Pearl street.
 Rush street, 11 feet north of Pearl street.
 Rush street, 128 feet north of Brook street.
 Sacramento street, 5 feet south of Miller street.
 Sanborn avenue, 60 feet east of Walnut street.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Sargent avenue, 442 feet south of Broadway.	Somerville avenue, 77 feet from Belmont street.
Sargent avenue, 361 feet west of Walnut street.	Somerville avenue, 69 feet east of Spring street.
Sargent avenue, 95 feet west of Walnut street.	Somerville avenue, opposite Spring street.
School street, 108 feet south of Maple avenue.	Somerville avenue, 195 feet west of Spring st.
School street, 8 feet south of Montrose street.	Somerville avenue, 13 feet west of Beech street.
School street, 128 feet north of Highland avenue.	Somerville avenue, 9 feet east of Central street.
School street, 88 feet north of Oxford street.	Somerville avenue, 15 feet west of Laurel street.
School street, 88 feet north of Avon street.	Somerville avenue, 100 feet west of Loring st.
School street, 100 feet south of Summer street.	Somerville avenue, 113 feet east of Dane street.
School street, 93 feet south of Preston street.	Somerville avenue, 185 feet west of Hawkins st.
School street, 61 feet north of Knapp street.	Somerville avenue, 88 feet west of Quincy street.
Sewall street, 324 feet west of Grant street.	Somerville avenue, 105 feet east of Carlton st.
Shawmut street, 9 feet north of Washington st.	Somerville avenue, 400 feet west of Prospect st.
Simpson avenue, 272 feet south from Broadway.	Somerville avenue, 83 feet west of Prospect st.
Skehan street, 110 feet east of Hanson street.	Somerville avenue, 30 feet west of Linden st.
Somerville avenue, 181 feet west of Mossland st.	Somerville avenue, 12 feet east of Mystic street.
Somerville avenue, 195 feet east of Beacon st. br.	Somerville avenue, 121 feet east of Medford st.
Somerville avenue, 500 feet east of Beacon st. br.	Somerville avenue, 86 feet east of Poplar street.
Somerville avenue, 120 feet west of Elm street.	Somerville avenue, 490 feet west of Fitch. R. R.
Somerville avenue, 112 feet west of Lowell st.	Somerville avenue, 100 feet west of Fitch. R. R.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Somerville avenue, south side of Fitchburg R. R.	Summer street, west corner Gordonia road.
Somerville avenue, 260 feet west of Franklin ct.	Summer street, opposite Banks street.
Somerville avenue, corner Franklin court.	Summer street, 6 feet east of Cherry street.
Somerville ave., 100 feet west of Cambridge line.	Summer street, 6 feet east of Cedar avenue.
South street, 234 feet west of Medford street.	Summer street, 24 feet east of Linden avenue.
South street, corner Emery street.	Summer street, opposite Craigie street.
South street, corner Earle street.	Summer street, 35 feet east of Porter street.
South street, 25 feet west of Hunting street.	Summer street, corner Lowell street.
South street, opposite Water street.	Summer street, east corner Belmont street.
Spring street, 10 feet south of Pitman street.	Summer street, corner Spring street.
Spring street, 184 feet north of Beech street.	Summer street, 53 feet west of Harvard street.
Springfield street, 140 feet south of Concord ave.	Summer street, 215 feet east of Harvard street.
Springfield street, 21 feet south of Dickinson st.	Summer street, 59 feet east of Central street.
Springfield st., 120 feet north of Cambridge line.	Summer street, 19 feet west of Laurel street.
Spring Hill terrace, 333 ft. south of Highland ave.	Summer street, 54 feet east of Preston street.
Stickney avenue, 212 feet west from Marshall st.	Summer street, 200 feet west of School street.
Stone avenue, 118 feet north of Union square.	Summer street, 8 feet east of School street.
Stone avenue, 275 feet south of Columbus avenue.	Summer street, opposite Putnam street.
Summer street, 160 feet east of Cutter avenue.	Summer street, 6 feet west of Vinal avenue.
Summer street, opposite Elston street.	Summit avenue, 120 feet west of Walnut street.

LOCATION OF HYDRANTS, DECEMBER 31, 1897. — *Continued.*

Sunnyside ave., 105 feet west of Wigglesworth st.	Tremont street, 454 feet south from Webster ave.
Sycamore street, 18 feet south of Broadway.	Trull street, 3 feet south of Medford street.
Sycamore street, 360 feet south of Broadway.	Trull street, 279 feet south of Medford street.
Sycamore street, corner Forster street.	Trull street, 522 feet north of Vernon street.
Sycamore street, 213 feet north of Medford street.	Trull street, 264 feet north of Vernon street.
Sycamore street, 174 feet south of Medford st.	Tufts street, 75 feet north of Washington street.
Sydney street, 412 feet east of Temple street.	Tufts street, 150 feet south of Glen street.
Talbot avenue, corner Packard avenue.	Tufts street, 39 feet north of Glen street.
Temple street, 53 feet north of Jaques street.	Tufts street, 56 feet south of Dell street.
Tenney court, 318 feet north of Mystic avenue.	Tufts street, 54 feet south of Cross street.
Tennyson street, 4 feet south from Medford st.	Thorndike street, 10 feet south of B. & M. R. R.
Tennyson st., 117 feet north from Pembroke st.	Thorpe place, 280 feet south of Highland avenue.
Thurston street, 187 feet north from Medford st.	Tyler street, 50 feet east of Vine street.
Thurston street, 444 feet north from Medford st.	
Thurston street, 6 feet north of Evergreen ave.	Union square, corner Washington street.
Thurston st., 348 feet north from Evergreen ave.	Union square, in the square, opposite Hill bld'g.
Tower street, 16 feet north of Crown street.	Union square, west side of square.
Tremont street, corner Webster avenue.	Union street, corner Broadway.
Tremont street, 9 feet south from Webster ave.	Union street, opposite Benedict street.

Veazie street, opposite James street.	Walter street, 28 feet west of Walnut street.
Vernon street, 75 feet west of Partridge avenue.	Walter street, 50 feet west of Bradley street.
Vernon street, corner Bartlett street.	Ward street, 84 feet west of Medford street.
Vernon street, corner Miner street.	Ward street, corner Emery street.
Vinal avenue, 129 feet north of Aldersey street.	Ware street, 258 feet west of Curtis street.
Vinal avenue, 219 feet north of Summer street.	Warren avenue, corner of Sanborn avenue.
Vinal avenue, corner Highland avenue.	Warren avenue, 75 feet south of Columbus ave.
Vine street, 180 feet north of Beacon street.	Warren avenue, 175 feet north of Bow street.
Virginia street, 45 feet west of Aldrich street.	Warwick street, 420 feet east of Cedar street.
Wallace street, 40 feet south of Broadway.	Washington street, 69 feet west of Crescent street.
Wallace street, 480 feet south of Broadway.	Washington street, corner Mt. Vernon street.
Wallace street, 694 feet south of Broadway.	Washington street, corner Florence street.
Wallace street, 175 feet north of Park avenue.	Washington street, corner Myrtle street.
Wallace street, 10 feet north of Holland street.	Washington street, 15 feet west of Myrtle street.
Walnut street, 38 feet south of Veazie street.	Washington street, 20 feet east of Franklin ave.
Walnut street, 87 feet north from Gilman street.	Washington street, 50 feet east of Shawmut st.
Walnut street, 92 feet south of Wellington ave.	Washington street, 100 feet east of Rossmore st.
Walnut street, 36 feet north of Pleasant avenue.	Washington street, 84 feet east of Boston street.
Walnut street, 12 feet south of Boston street.	Washington street, 75 feet west of Mystic street.
	Washington street, corner Clark place.

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Washington street, opposite Union square.	Webster avenue, south corner of Columbia court.
Washington street, 6 feet east of Kingman court.	Webster street, 9 feet east of Cross street.
Washington street, 240 feet east of Parker street.	Webster street, 9 feet east of Rush street.
Washington street, 96 feet west of Parker street.	Webster street, 12 feet west of Cutter street.
Washington street, 9 feet east of Leland street.	Wellington avenue, west of Montgomery avenue.
Washington street, 186 feet west of Dane street.	West street, corner Broadway.
Washington street, 45 feet east of Beacon street.	West street, ward 4, corner Highland avenue.
Water street, 91 feet north of South street.	West st., ward 4, 144 feet north of Highland ave.
Water street, 254 feet north of South street.	Westminster st., 105 feet south from Electric ave.
Water street, 354 feet north of South street.	Westwood road, 90 feet west of Central street.
Waterhouse street, 24 feet south from Broadway.	Westwood road, 58 feet east of Benton avenue.
Waterhouse st., 322 feet south from Broadway.	Wheatland street, 135 feet north of Broadway.
Waterhouse st., 620 feet south from Broadway.	Wheatland street, 9 feet south of Jaques street.
Webster avenue, 96 feet south of Union square.	Wheatland street, 100 feet south of Mystic ave.
Webster avenue, 12 feet south of Everett street.	Willow avenue, 12 feet north of Summer street.
Webster avenue, 25 feet north of Newton street.	Willow avenue, 250 feet north of Highland ave.
Webster avenue, 63 feet north of Prospect street.	Willow avenue, 66 feet south of Morrison street.
Webster avenue, 18 feet south from Prospect st.	Willow avenue, 42 feet south from Fosket street.
Webster avenue, 275 feet south of Prospect st.	Wilton street, 6 feet east of Nashua street.
Webster avenue, 3 feet north from Beach avenue.	Wilton street, 12 feet east of Lawrence street.

GATES—CONSTRUCTION ACCOUNT.

New gates have been set in the following locations:—

Appleton street, 2-inch, 3 feet out from water post near corner Willow avenue.

Broadway, 2-inch, 3 feet out from water post opposite North street.

Broadway, 20-inch, 16 feet out from south line and 11 feet west from west line of Willow avenue.

Broadway, 12-inch, 20 feet out from south line, on east line of Willow avenue.

Broadway, 8-inch, 56 feet out from north line, on west line of Cedar street.

Broadway, 12-inch, 23 feet out from south line and 17 feet east from west line of Elm street.

Browning road, 6-inch, 13 feet out from north line, on east line of Central street.

Chester street, 2-inch, 13 feet out from north line, on west line of Orchard street.

Concord avenue, 8-inch, 13 feet out from south line, on west line of Marion street.

Crown street, 6-inch, 10 feet out from east line, on north line of Lowell street.

Day street, 2-inch, 13 feet out from north line, on west line of Orchard street.

Forest street, 2-inch, 16 feet out from south line, on west line of Beacon street.

Fosket street, 10-inch, 13 feet out from north line, on west line of Willow avenue.

Gilson terrace, 6-inch, 5 feet out from north line, on west line of Linden avenue.

Glendale avenue, 6-inch, 13 feet out from north line, on west line of Cameron avenue.

Heath street, 10-inch, 10 feet out from south line, on west line of Bond street.

Heath street, 10-inch, 10 feet out from south line, on east line of Mt. Vernon avenue.

Highland avenue, 6-inch, for hydrant, 22 feet 6 inches south from north line and 44 feet 9 inches west from west line of Lesley avenue.

Holt's avenue, 2-inch, in middle of Holt's avenue, on east line of Oak street.

Kent street, 6-inch, for blow-off, 12 feet out from east line and 22 feet out from south line of Fitchburg Railroad.

Maple avenue, 6-inch, 14 feet out from north line, on east line of School street.

Mead street, 6-inch, 13 feet out from north line and 1 foot west from west line of Cameron avenue.

Meacham street, 2-inch, 13 feet out from north line, on west line of Orchard street.

Medford street, 12-inch, 15 feet 4 inches out from south line, on east line of Sycamore street.

Medford street, 10-inch, 16 feet 8 inches out from east line, on south line of Hamlet street.

Melburn place, 2-inch, 9 feet out from west line, on north line of Summer street.

Mt. Pleasant avenue, 2-inch, for blow-off, 12 feet out from south line and 140 feet west from west line of Curtis street.

Mt. Vernon avenue, 10-inch, 15 feet 6 inches out from south line, on west line of Heath street.

Mt. Vernon avenue, 10-inch, 15 feet 6 inches out from south line, on east line of Main street.

Newbury street, 8-inch, 13 feet 8 inches out from east line, on south line of house No. 42.

Newton street, 20-inch, 6 feet out from north line, on east line of Webster avenue.

Pearl street, 6-inch, for blow-off, 17 feet 6 inches out from north line and 16 feet east from east line of Walnut street.

Pearl street, 12-inch, 14 feet 8 inches out from north line and 14 feet east from east line of Walnut street.

Prospect place, 6-inch, 10 feet out from east line, on south line of Newton street.

Russell street, 2-inch, 13 feet out from north line, on west line of Orchard street.

School street, 10-inch, 17 feet out from east line, on north line of Medford street.

School street, 10-inch, 14 feet out from west line and 2 feet north from north line of Landers street.

Simpson avenue, 12-inch, 14 feet out from west line, on south line of Broadway.

Stickney avenue, 6-inch, 12 feet out from north line, on east line of School street.

Thurston street, 6-inch, 13 feet 4 inches out from east line, on south line of Evergreen avenue.

Tower street, 8-inch, 13 feet 4 inches out from east line, on north line of Crown street.

Union square, 6-inch, for hydrant, 18 feet south from north line of Somerville avenue and 11 feet east from west line of Warren avenue.

Walnut street, 8-inch, 13 feet 4 inches out from east line, on south line of Medford street.

Waterhouse street, 8-inch, 13 feet 4 inches out from west line and 6 inches south from south line of Broadway.

Webster avenue, 20-inch, 9 feet 6 inches out from east line and 53 feet south from south line of house No. 37.

Webster avenue, 4-inch, 2 feet west from east line of Webster avenue and 60 feet 6 inches north from south line of glass-house building on branch to glass house.

Westminster street, 6-inch, 13 feet 4 inches out from west line, on north line of Broadway.

Willow avenue, 12-inch, 18 feet 6 inches out from west line and 12 feet 6 inches south from north line of Elm street.

GATES—RENEWAL ACCOUNT.

The following changes have been made in the size and locations of main gates:—

Chauncey avenue, 12-inch gate, set 17 feet 6 inches out from west line, on north line of Broadway, to replace 6-inch gate removed from same location.

Clark street, 10-inch gate, set 12 feet out from east line, on north line of Newton street, to replace 6-inch gate removed from same location.

Concord avenue, 12-inch gate, set 13 feet out from south line and 1 foot east from west line of Springfield street, to replace 6-inch gate removed from 27 feet out from south line, on east line of Springfield street.

Concord avenue, 12-inch gate, set 13 feet 4 inches out from south line on west line of Prospect street, to replace 6-inch gate removed from 12 feet out from south line, on west line of Prospect street.

Congress place, 2-inch gate, set 6 feet out from north line and 6 feet east from west line of Linwood street, to replace 1-inch gate removed from same location.

Heath street, 10-inch gate, set 10 feet out from south line, on east line of Moreland street, to replace 4-inch gate removed from 12 feet out from north line, on east line of Moreland street.

Lamson court, 2-inch gate, set 7 feet out from south line, on east line of Linwood street, to replace 1-inch gate removed from same location.

Mystic avenue, 12-inch gate, set 22 feet out from south line, on east line of Temple street, to replace 6-inch gate removed from 10 feet out from old line opposite Temple street.

Mystic avenue, 12-inch gate, set 22 feet out from south line of Mystic avenue and 1,063 feet 6 inches east from east line of Moreland street, to replace 6-inch gate removed from 10 feet out from old line, on west line of Melrose street.

Newton street, 6-inch gate, for blow-off, set 11 feet 3 inches south from north line and 11 feet east from west line of Emerson street, to replace 4-inch blow-off gate 10 feet south from north line of Newton street and 10 feet east from west line of Emerson street.

Pearl street, 12-inch gate, set 14 feet 8 inches out from north line, on east line of Walnut street, to replace 6-inch gate removed from same location.

Somerville avenue, 8-inch gate, set 10 feet east from west line of Somerville avenue and 91 feet north from north line of house No. 73, on branch pipe running to J. P. Squire & Co.'s, to replace 6-inch gate removed from 6 feet east from west line of Somerville avenue and 91 feet north from north line of house No. 73.

WATER POSTS.

Two new water posts, for the use of the street-watering department, were set in 1897, in the following locations:—

Appleton street, near Willow avenue.

Broadway, opposite North street.

The total number now in the city is fifty-three. One water post was moved from Orchard street, near Day street, to Orchard street, near Meacham, and one was moved from Walnut street, near Pearl street, to Gilman street, near Walnut street. All are in good condition, having received the usual renewals of boxes, valves, hose, and general repairs.

LOCATIONS OF WATER POSTS.

Albion street, near Lowell street.

Beacon street, opposite Cooney street.

Beacon street, near Vine street.

Beacon street, near Sacramento street.

Boston street, near Greenville street.

Broadway, near corner of Franklin street.

Broadway, opposite Broadway park.

Broadway, opposite city farm.

Broadway, near Irving street.

Broadway, corner of Clarendon avenue.

Columbus avenue, near Stone avenue.

Concord avenue, corner of Marion street.

Elm street, near Burnside avenue.

Elm street, near Morrison street.

Elm street, opposite Kenwood street.

Flint street, near Cross street.

Gilman street, near Walnut street.

Highland avenue, corner of Medford street.

Highland avenue, corner of Central street.

Highland avenue, near Crocker street.

Highland avenue, near Willow avenue.

Holland street, near Elmwood street.

Jaques street, near Glines school.

Linwood street, near Poplar street.

Main street, near Broadway.
 Medford street, corner of Lee street.
 Medford street, near Jenny Lind avenue.
 Montrose street, near School street.
 Mystic avenue, corner of Union street.
 Orchard street, near Meacham street.
 Pearl street, near Delaware street.
 Pearl street, near Myrtle street.
 Putnam street, corner of Summer street.
 School street, near Broadway.
 Somerville avenue, near East Cambridge line.
 Somerville avenue, near Poplar street.
 Somerville avenue, corner of Mystic street.
 Somerville avenue, near School street.
 Somerville avenue, corner of Beacon street.
 Spring street, near Somerville avenue.
 Summer street, opposite Laurel street.
 Summer street, near Belmont street.
 Summer street, corner of Cedar street.
 Summer street, corner of Elm street.
 Tufts street, corner of Cross street.
 Vinal avenue, near Highland avenue.
 Washington street, corner of Myrtle street.
 Washington street, corner of Boston street.
 Washington street, near Union square.
 Washington street, opposite Leland street.
 Webster avenue, near glass house.

The following items of expense appear for the construction and maintenance of water posts:—

Cost of setting two new water posts, complete:—

Materials	\$53 54	
Labor and teaming	27 91	
		\$81 45

Maintenance of posts and turning off and on water:—

Materials	\$154 00	
Labor and teaming	223 17	
		377 17

Total cost			\$458 62
----------------------	--	-------	----------

DRINKING FOUNTAINS.

The expense for maintenance of fountains and watering troughs, cleaning and repairs, was \$15.71.

The total number now in the city is seven, located as follows:—

Highland avenue, corner of Walnut street.

Gilman square, in centre.

Somerville avenue, junction with Washington street.

Union square, in front of Hill building.

Davis square, in centre.

Davis square, in front of Medina building.

Teele square, junction of Broadway and Holland street.

MAINTENANCE OF STREET MAINS.

The following bursts and leaks on street mains are recorded for 1897:—

BURSTS.

	SIZE OF MAIN.	NUMBER.
	4"	5
	6"	2
	8"	1
	10"	1
	20"	1
Total		10

LEAKS.

	SIZE OF MAIN.	NUMBER.
	4"	2
	6"	2
	8"	2
	10"	2
	12"	1
	14"	1
Total		10

Expenditures in 1897 on account of defective street mains follow:—

Pipe and fittings used	\$63 25
Labor and teaming	248 57
	\$311 82

WATER SERVICES.

SERVICE CONSTRUCTION.

Five hundred and sixty-two new service connections were made in 1897, as follows:—

Owners' applications received in 1897	320
“ “ “ “ 1896	1
Transferred from City of Cambridge mains in Prospect street district	241
	562

The following table shows the sizes and lengths laid:—

	SIZE.	NUMBER.	LENGTH.
	2"	2	119 feet
	1½"	3	182 "
	1"	11	394 "
	¾"	546	15,332 "
Total		562	16,027 feet.

Total number of service pipes laid to January 1, 1898, 9,601.

Total length of service pipe used in making service connections, 60 miles 1,165 feet.

SERVICE MAINTENANCE.

The following items of expense appear in the maintenance and repairs of service pipes:—

Leaks repaired on service pipes	110
Iron service boxes set, decayed wooden ones replaced, etc.	194
New service gates set on old connections	96
Services cleaned of sediment, fish, etc.	58
Service boxes brought to grade by construction of new sidewalks	78
Services replaced at city's expense on account of defective pipe or fittings	9
Total expenditure for labor and fittings on service maintenance account	\$2,000 26

HIGH SERVICE.

COST OF OPERATION AND MAINTENANCE.

Engineer's salary	\$1,100 04
Firemen's wages	872 50
Fuel for boiler	1,107 61
Telephone rental and tolls	82 30
Electric lighting	65 87
Furniture and tools	35 03
Supplies and repairs to pump and boilers	35 42
Insurance on boilers	100 00
Incidentals	8 00
	\$3,406 77

Total number of gallons of water pumped in 1897, 242,-016,000.

Cost of pumping per 1,000 gallons, based on the expense of operating the high-service system, \$0.01407.

VALUATION OF PROPERTY UNDER CONTROL OF
THE WATER BOARD, DECEMBER 31, 1897.

77 miles, 2,886 feet of iron and cement distribution mains	}	\$650,000 00
969 gates and boxes set in connection therewith		
790 fire hydrants set in connection therewith		
53 water posts set in connection therewith		
High-service standpipe and grounds		17,000 00
“ “ pumping station, buildings, and grounds		17,300 00
High-service pumps and boilers		10,000 00
Pump and boiler sundries		24 25
Pumping station furniture and tools		744 50
Shop buildings and yard		6,900 00
Shop furniture		157 00
Office furniture		1,204 00
Books, stationery, etc.		200 00
Tools		1,784 00
Horses		500 00
Wagons, sleighs, etc.		835 00
Harnesses, robes, etc.		235 00
Hay and grain		53 20
Stable utensils		32 00
Main pipe on hand		15,630 00
Special castings on hand		3,080 10
Hydrants on hand		138 00
Gates and boxes on hand		999 75
Pig lead on hand		16 00
Service pipe and fittings on hand		1,796 52
		\$728,629 32

The Board is also in control of 60 miles 1,165 feet of service pipes, with 9,601 connections, the cost of which has been paid to the city by the owners of properties connected to the water mains.

REPORT OF THE ENGINEER OF THE PUMPING STATION.

HIGH SERVICE PUMPING STATION,
Somerville, December 31, 1897. }

TO THE SOMERVILLE MYSTIC WATER BOARD:—

Gentlemen,—The following table shows the work done at the high service pumping station for the year ending December 31, 1897.

The machinery is in good working condition, and no accidents have occurred, or repairs been necessary:—

Date 1897.	No. of Days.	No. of Runs.	Pumping Time in Hours.	Gallons of Water Pumped	Pounds of Coal Burned.	Pounds of Ashes and Clinkers.
Jan. . . .	31	62	228.00	22,521,600	72,525	7,600
Feb. . . .	28	56	190.00	19,238,400	61,350	7,725
March . . .	31	62	215.00	20,688,000	65,625	7,875
Apr. . . .	30	60	214.30	20,544,000	64,250	10,125
May	31	62	217.00	20,976,000	65,125	9,250
June	30	60	221.30	20,352,000	64,325	9,050
July	31	62	237.30	21,504,000	72,975	9,300
Aug. . . .	31	62	213.00	18,456,000	67,620	8,625
Sept. . . .	30	60	203.30	18,600,000	64,425	8,250
Oct. . . .	31	62	208.30	18,960,000	59,675	10,275
Nov. . . .	30	61	195.00	17,172,000	58,300	9,700
Dec. . . .	31	63	357.45	23,904,000	81,750	11,900
Total . . .	365	732	2,710.15	242,016,000	797,045	109,675

SIDNEY E. HAYDEN,

Engineer.

School street, 10-inch, 14 feet out from west line and 2 feet north from north line of Landers street.

Simpson avenue, 12-inch, 14 feet out from west line, on south line of Broadway.

Stickney avenue, 6-inch, 12 feet out from north line, on east line of School street.

Thurston street, 6-inch, 13 feet 4 inches out from east line, on south line of Evergreen avenue.

Tower street, 8-inch, 13 feet 4 inches out from east line, on north line of Crown street.

Union square, 6-inch, for hydrant, 18 feet south from north line of Somerville avenue and 11 feet east from west line of Warren avenue.

Walnut street, 8-inch, 13 feet 4 inches out from east line, on south line of Medford street.

Waterhouse street, 8-inch, 13 feet 4 inches out from west line and 6 inches south from south line of Broadway.

Webster avenue, 20-inch, 9 feet 6 inches out from east line and 53 feet south from south line of house No. 37.

Webster avenue, 4-inch, 2 feet west from east line of Webster avenue and 60 feet 6 inches north from south line of glass-house building on branch to glass house.

Westminster street, 6-inch, 13 feet 4 inches out from west line, on north line of Broadway.

Willow avenue, 12-inch, 18 feet 6 inches out from west line and 12 feet 6 inches south from north line of Elm street.

GATES—RENEWAL ACCOUNT.

The following changes have been made in the size and locations of main gates:—

Chauncey avenue, 12-inch gate, set 17 feet 6 inches out from west line, on north line of Broadway, to replace 6-inch gate removed from same location.

Clark street, 10-inch gate, set 12 feet out from east line, on north line of Newton street, to replace 6-inch gate removed from same location.

Concord avenue, 12-inch gate, set 13 feet out from south line and 1 foot east from west line of Springfield street, to replace 6-inch gate removed from 27 feet out from south line, on east line of Springfield street.

Concord avenue, 12-inch gate, set 13 feet 4 inches out from south line on west line of Prospect street, to replace 6-inch gate removed from 12 feet out from south line, on west line of Prospect street.

Congress place, 2-inch gate, set 6 feet out from north line and 6 feet east from west line of Linwood street, to replace 1-inch gate removed from same location.

Heath street, 10-inch gate, set 10 feet out from south line, on east line of Moreland street, to replace 4-inch gate removed from 12 feet out from north line, on east line of Moreland street.

Lamson court, 2-inch gate, set 7 feet out from south line, on east line of Linwood street, to replace 1-inch gate removed from same location.

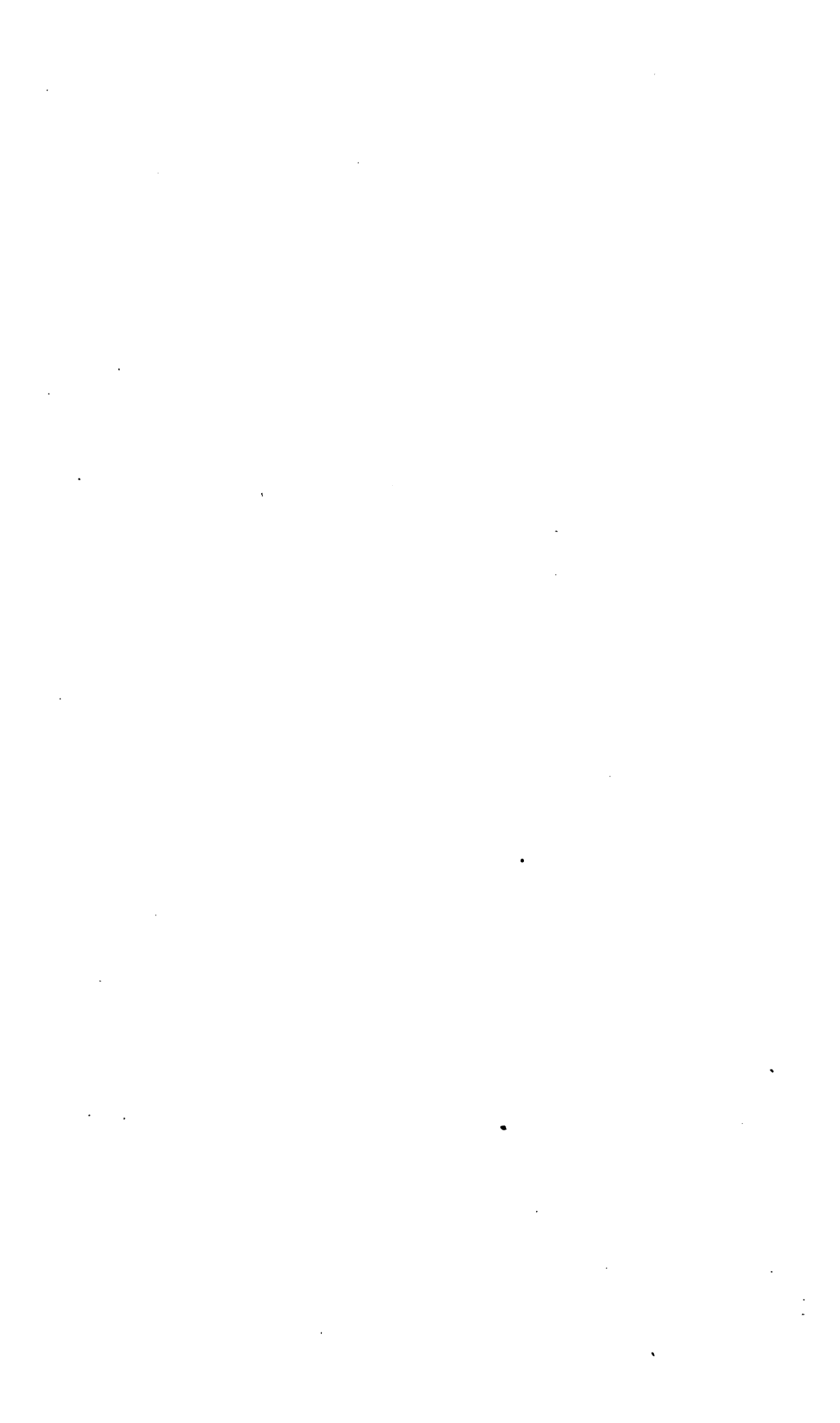
Mystic avenue, 12-inch gate, set 22 feet out from south line, on east line of Temple street, to replace 6-inch gate removed from 10 feet out from old line opposite Temple street.

Mystic avenue, 12-inch gate, set 22 feet out from south line of Mystic avenue and 1,063 feet 6 inches east from east line of Moreland street, to replace 6-inch gate removed from 10 feet out from old line, on west line of Melrose street.

Newton street, 6-inch gate, for blow-off, set 11 feet 3 inches south from north line and 11 feet east from west line of Emerson street, to replace 4-inch blow-off gate 10 feet south from north line of Newton street and 10 feet east from west line of Emerson street.

Pearl street, 12-inch gate, set 14 feet 8 inches out from north line, on east line of Walnut street, to replace 6-inch gate removed from same location.

Somerville avenue, 8-inch gate, set 10 feet east from west line of Somerville avenue and 91 feet north from north line of house No. 73, on branch pipe running to J. P. Squire & Co.'s, to replace 6-inch gate removed from 6 feet east from west line of Somerville avenue and 91 feet north from north line of house No. 73.



WATER POSTS.

Two new water posts, for the use of the street-watering department, were set in 1897, in the following locations:—

Appleton street, near Willow avenue.

Broadway, opposite North street.

The total number now in the city is fifty-three. One water post was moved from Orchard street, near Day street, to Orchard street, near Meacham, and one was moved from Walnut street, near Pearl street, to Gilman street, near Walnut street. All are in good condition, having received the usual renewals of boxes, valves, hose, and general repairs.

LOCATIONS OF WATER POSTS.

Albion street, near Lowell street.

Beacon street, opposite Cooney street.

Beacon street, near Vine street.

Beacon street, near Sacramento street.

Boston street, near Greenville street.

Broadway, near corner of Franklin street.

Broadway, opposite Broadway park.

Broadway, opposite city farm.

Broadway, near Irving street.

Broadway, corner of Clarendon avenue.

Columbus avenue, near Stone avenue.

Concord avenue, corner of Marion street.

Elm street, near Burnside avenue.

Elm street, near Morrison street.

Elm street, opposite Kenwood street.

Flint street, near Cross street.

Gilman street, near Walnut street.

Highland avenue, corner of Medford street.

Highland avenue, corner of Central street.

Highland avenue, near Crocker street.

Highland avenue, near Willow avenue.

Holland street, near Elmwood street.

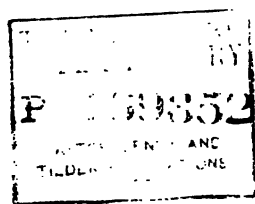
Jaques street, near Glines school.

Linwood street, near Poplar street.

TWENTY-FIFTH
ANNUAL REPORT
OF THE
Board of Water Commissioners
OF THE
CITY OF SOMERVILLE
MASSACHUSETTS
FOR THE YEAR 1898



BOSTON:
AMERICAN PRINTING AND ENGRAVING CO.
50 Arch Street.
1899.



CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, February 15, 1899.

Referred to Committee on Printing, to be printed in the annual reports.
Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, February 16, 1899.

Referred to Committee on Printing, to be printed in the annual reports, in
concurrence.

CHARLES S. ROBERTSON, *Clerk.*

BOARD OF WATER COMMISSIONERS, 1898.

GEORGE D. WEMYSS, *President.*

WM. FRANKLIN HALL (term expires Dec. 31, 1898).

Residence, 345 Broadway.

GEORGE D. WEMYSS (term expires Dec. 31, 1899).

Residence, 5 Austin street.

GEORGE A. KIMBALL (term expires Dec. 31, 1900).

Residence, 33 Warren avenue.

**SUPERINTENDENT OF THE WATER WORKS AND CLERK OF
THE BOARD.**

FRANK E. MERRILL.

OFFICE OF THE WATER DEPARTMENT.

Room 10, City Hall.

ENGINEER AT PUMPING STATION.

SIDNEY E. HAYDEN.

PUMPING STATION AND SHOP.

Cedar street, near Broadway.

Bills against the department should be rendered to the Superintendent on or before the first day of each month, and are payable by the City Treasurer on the seventeenth of the month.

NEW YORK
PUBLIC LIBRARY



WATER WORKS BUILDING—FROM CEDAR STREET.

CITY OF SOMERVILLE.

OFFICE OF THE BOARD OF WATER COMMISSIONERS,
January 12, 1899.

TO HIS HONOR, THE MAYOR, AND THE CITY COUNCIL:—

The Board of Water Commissioners present herewith, for your consideration, the twenty-fifth annual report of the department in their charge, covering the operations of the year ending December 31, 1898.

The Board organized on the 3rd of February by the re-election of George D. Wemyss as President and Frank E. Merrill as Clerk of the Board. On the 8th of March Mr. Merrill was elected Superintendent of the Water Works, having been certified for promotion to that office by the State Board of Civil Service Commissioners.

By legislative enactment (Chap. 33, Acts 1898), approved February 8, the name of the Somerville Mystic Water Board, established by Chap. 182, Acts of 1890, was changed to the Board of Water Commissioners of the City of Somerville.

FINANCES.

COST OF WATER WORKS.

The total cost of the water works on December	
31, 1897, was	\$694,608.76
Expended during the year 1898 on construction	
account	26,970.22
Total cost December 31, 1898	\$721,578.98

WATER DEBT.

The indebtedness of the city on account of the water works on December 31, 1897, was \$294,000; this debt has been reduced during 1898 by the payments of bonds, maturing July 1

and October 1, to the amount of \$22,000; the indebtedness being now represented by bonds drawing interest as follows :—

\$234,000.00 at 4 per cent. per annum.
 28,000.00 at 5 per cent. per annum.
 10,000.00 at 5 1-2 per cent. per annum.

WATER REVENUE.

Earnings of the department in 1898 from the sale of water	\$207,195.16
Water bills uncollected, Dec. 31, 1898	11,739.01
Cash collections in 1898	\$195,456.15
Received from City of Boston, water rates uncollected in 1897	5,278.88
Cash income, 1898	\$200,735.03

The disposition of this income was as follows :—

Appropriated by the City Council for the use of the water department	\$85,278.88	
Appropriated by the City Council for the use of other departments	67,280.96	
Metropolitan Water Works Assessment	14,250.19	
Applied to interest on water debt	11,925.00	
Applied to reduction of water debt	22,000.00	
		\$200,735.03

The following table, exhibiting the financial condition of the department from its first movements, is presented for reference and comparison :—

REPORT OF THE WATER BOARD.

7

YEAR.	Water Loan Bonds Issued on Funded Debt Account.	Reduction of Funded Debt by Payments of Water Loan Bonds.	Expenditures for Construction of Water Works.	* Revenue from Water Works.
1869	\$80,000.00		\$92,203.27	\$ 911.39
1870	60,000.00		66,546.50	1,907.63
1871	60,000.00		43,648.66	3,151.30
1872	90,000.00	\$50,000.00	43,288.33	3,719.91
1873	60,000.00	20,000.00	27,691.26	5,084.97
1874	15,000.00		34,294.06	6,818.20
1875	20,000.00		13,375.76	9,652.37
1876	70,000.00	60,000.00	6,409.49	10,268.06
1877	10,000.00		13,845.74	10,735.90
1878	30,000.00	30,000.00	514.13	11,584.89
1879			791.56	12,341.60
1880	60,000.00	60,000.00		12,999.79
1881	40,000.00	40,000.00		14,697.37
1882	90,000.00	90,000.00		19,354.28
1883	7,500.00	7,500.00		19,661.67
1884	20,000.00	20,000.00		20,085.95
1885	20,000.00	20,000.00		21,542.28
1886	55,500.00	55,500.00		21,444.91
1887	9,000.00	9,000.00		42,650.57
1888	25,000.00	96,500.00	19,338.89	50,419.07
1889	90,000.00	19,000.00	81,117.43	51,470.91
1890	55,000.00	13,000.00	53,411.79	55,879.72
1891	10,000.00	†11,000.00	40,708.48	60,150.80
1892	28,000.00	28,000.00	34,863.17	77,640.91
1893		17,000.00	35,546.30	78,459.73
1894		18,000.00	28,375.67	83,401.30
1895		19,000.00	32,007.44	89,431.46
1896	†12,000.00	18,500.00	16,631.83	95,719.69
1897		21,000.00	10,000.00	99,688.57
1898		22,000.00	26,970.22	200,735.03
	\$1,017,000.00	\$745,000.00	\$721,578.98	\$1,191,610.23

Total issue \$1,017,000.00

Total payments 745,000.00

Present water debt \$272,000.00

* From 1869 to 1886, inclusive, the basis of Somerville's water revenue was as follows:—
The entire revenue from sale of water in Somerville was collected by the City of Boston and payments were made to this city on the following sliding scale:—

On annual receipts up to \$20,000.00, Somerville's proportion was 15 per cent.
On annual receipts \$20,000.00 to \$30,000.00, Somerville's proportion was 20 per cent.
" " \$30,000.00 to \$40,000.00 " " " 25 " "
" " \$40,000.00 to \$50,000.00 " " " 30 " "
" " exceeding \$50,000.00, Somerville's proportion was 40 per cent.

In 1887 the contract was changed so that Somerville should receive 50 per cent. of the revenue, and this contract existed until January 1, 1898, on which date it was annulled, the revenue since that time being collected by the City of Somerville.

† In 1891, \$5,000.00 of Water Loan Bonds were cancelled, City Loan Bonds being substituted for them.

‡ Renewal.

The city is to be congratulated on the results of the first year's entire management of its own water works. Although most of the office work, including the making of assessments and preparation of the bills for collection, was entirely new to the department, it has been performed with little or no friction.

We feel that the credit for this is due to the very efficient work of our superintendent and his assistants. It has been a great source of pleasure to the water takers to be able to get all desired information, in connection with the operation of the department, as well as to pay their water bills, without going to a neighboring city for that purpose, as heretofore.

WATER SUPPLY.

The Metropolitan water was introduced on the first of the year. The city now has a water supply which equals that of almost any city in the country, both as regards quantity and quality.

This system will provide us with an abundant supply of excellent water for generations to come. The city has every reason to be satisfied and pleased with this new condition of things.

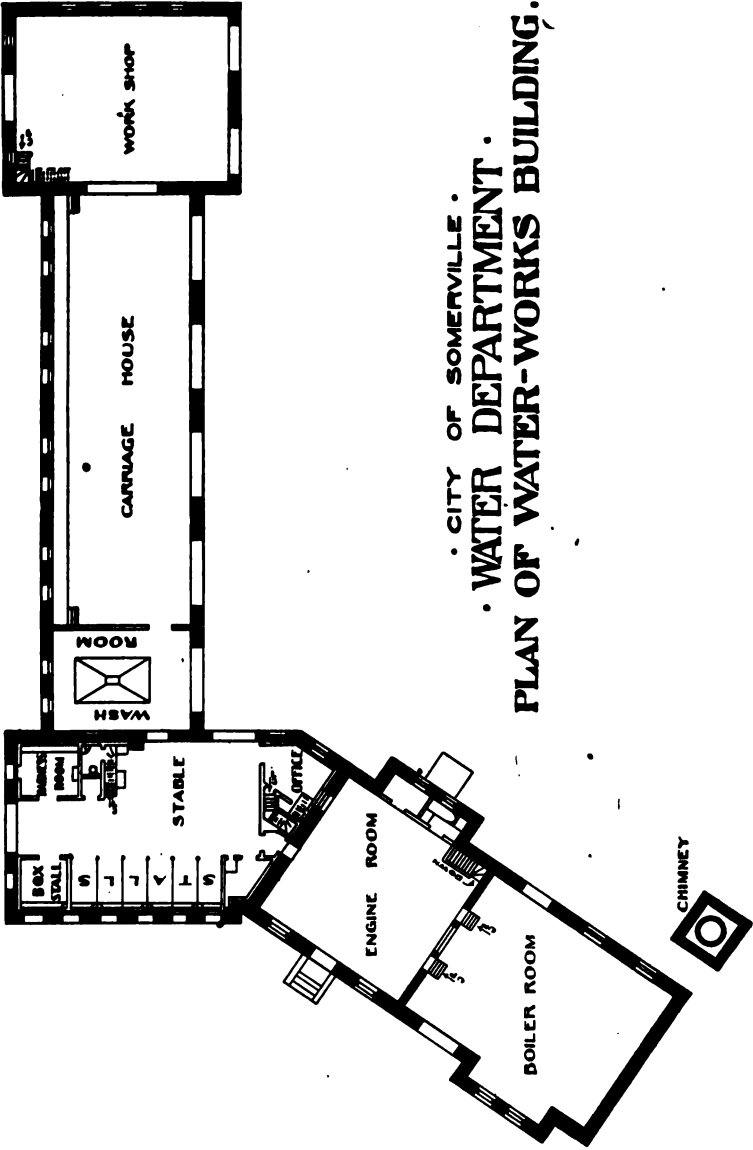
There are times when there is considerable sediment in the water in different parts of the city, especially in the vicinity of dead ends; this condition is largely due to dirt getting into the pipes when there are breaks, and it will be improved as the cement-lined pipes are removed and the circulating system is extended.

RENEWALS, EXTENSIONS, ETC.

The year just closed has been one of the most important, as regards the amount of work accomplished, in the history of the department; 7,536 feet of pipe of various sizes have been laid in extension of the works; 22,643 feet of cast-iron pipe have been laid in place of the old cement mains; 42 new hydrants have been set, making a total of 863 in the city; 64 additional gates and 2 check valves have been put in, and 205 service connections have been laid.

There now remains about nine miles of cement-lined pipe in our streets, but only a portion of it has given any trouble.





NEW DEPARTMENT BUILDING.

During the year we have erected a brick building, adjoining and connected with the pumping station, containing a stable constructed on the most approved plans, with seven stalls and all conveniences; including also a commodious wagon shed and storehouse, and a convenient workshop.

This enables us to concentrate the teams and all the material of every description needed for carrying on the work of the department at this one place, resulting in a great convenience and a large saving in time and energy heretofore necessarily spent by having the teams kept at one end of the city and the materials required to do our work kept at the other end.

A man is on duty night and day, so that emergencies can be attended to without delay, thus making it possible to repair leaks and breaks with the least inconvenience to the public.

The building cost, complete, \$15,513.55; this includes grading and filling outside, granolithic flooring, plumbing, heating, electric wiring, etc., not included in the contract. By the new arrangement we have been able to discontinue the use of one telephone and make savings in other directions sufficient to justify the cost of the new building.

The old buildings which had so long served the purpose of office, workshop and stable have been placed at the disposal of the City Council.

HIGH SERVICE.

The high-service pumping plant has continued to work satisfactorily and is in first-class condition. The pump and woodwork of the pumping room have received a thorough cleaning and coat of varnish.

In order to carry out their plans, pending the completion of the Fells pumping station, the Metropolitan Water Board desired to use our pumping plant in connection with others in the Northern Metropolitan District, in order that the pumping might all be done into the general high-service system. Such an arrangement has, therefore, been made in order to facilitate the operation of the high-water service in that district.

WATER REVENUE.

It is very gratifying to the Commissioners that the income department of the works has, the first year of its operation, made such an excellent showing.

Reference to the details furnished in the report of the superintendent shows the earnings of the water works for the year to have been about \$207,000.00, closely approaching our estimate of \$210,000.00, given a year ago. This variation is easily attributable to the general business depression, entailing a considerable falling off in building construction.

The Board has very carefully considered the question of giving to the water consumers a portion of the benefits which may come under the provisions of the Metropolitan Water Act, by which the city is now obtaining its water from the sources controlled by the Metropolitan Water Board. The matter was gone over in all its bearings, estimates having been carefully made of the probable earnings and expenditures of the works for the next ten years.

The increase in assessments under the Metropolitan Water Act were taken into consideration; the certainty of an early and large decrease in expenses of maintenance of our own works, and the probability of about the same ratio of increase in the earnings of the department as has been shown in the last ten years were given due weight.

On the basis of an average income for the next ten years of but \$210,000.00 per year and of average expenses for the same time, including payments of maturing bonds, interest requirements, maintenance and extension of our works, and Metropolitan water-works assessments, all of which, by a fair estimate, will not exceed \$127,000.00 per year, there would be an average surplus over expenses of \$83,000.00 per year.

On this conservative basis it appears that a ten per cent. reduction in the water rates might be made which would benefit the water-tax payers to the extent of about \$21,000.00 per year and would still leave a surplus of earnings to be devoted to municipal purposes of over \$60,000.00 yearly.

The judgment of your Commissioners culminated, therefore, in the passage of a vote on December 5th, to make a discount of ten per cent. on all water bills for the year 1899.

The Metropolitan Water Act provides in Section 20 that the Water Commissioners shall determine the rate to be paid for water by the owner of the premises to which water is furnished, subject to the approval of the Mayor and of the Metropolitan Water Board.

In accordance with these requirements of the statutes, a communication was sent to the Mayor on December 6th, stating the action of the Board and asking his approval of the proposed reduction in the water rates. A similar communication was also forwarded to the Metropolitan Water Board, and action thereon was taken by that body on December 9th, the new schedule of rates being approved by that Board.

Our Mayor, however, after having given the matter careful thought and consulted with representative citizens and taxpayers from different sections of the city, felt compelled to dissent from the judgment of the Board relative to the expediency of making a reduction at the present time, and in a letter dated January 5th, very courteously, and with a full explanation of his reasons, declined to give his assent to the proposed reduction, and, therefore, the action of the Water Commissioners therein became inoperative. The Commissioners regret that they were not permitted to carry out their intention regarding a reduction of the water charges, yet they hope by another year this may be brought about.

For details regarding the condition and operation of the works during the year, reference is asked to the report of the Superintendent, presented in connection herewith.

GEORGE D. WEMYSS.

GEORGE A. KIMBALL.

WM. FRANKLIN HALL.

Board of Water Commissioners.

OFFICE OF SUPERINTENDENT OF THE WATER WORKS,

January 14, 1899.

TO THE BOARD OF WATER COMMISSIONERS:—

Following the usual custom, I respectfully submit herewith the annual detailed statement of the work performed by the water department during the year 1898.

The following table shows the

RECEIPTS AND DISBURSEMENTS FOR THE YEAR 1898.

WATER MAINTENANCE ACCOUNT.

	Dr.	Cr.
Amount appropriated by City Council from water revenue		\$65,278.88
Collections from sundry accounts for labor and materials		3,178.18
Collections from other sources		102.00
Balance from water service assessments		383.95
Materials furnished service department	\$ 1,597.06	
Labor and materials furnished sundry persons	1,447.37	
Labor and materials used in maintenance of the water works	65,856.62	
Balance to credit of water debt	41.96	
	\$68,943.01	\$68,943.01

WATER WORKS EXTENSION ACCOUNT.

	Dr.	Cr.
Amount appropriated by City Council from water revenue		\$20,000.00
<i>Amount carried forward</i>		\$20,000.00

<i>Amount brought forward</i>		\$20,000.00
Amount transferred by City Council from maintenance account		7,000.00
Labor and materials used in extension of the water works	\$26,970.22	
Balance to credit of water debt	29.78	
	\$27,000.00	\$27,000.00

WATER SERVICE ACCOUNT.

	Dr.	Cr.
204 water service assessments		\$3,516.24
Collections for extra labor and material on above services		8.98
Labor and materials used in water service construction	\$3,141.27	
Balance transferred to water maintenance account	383.95	
	\$3,525.22	\$3,525.22

ACCOUNTING DEPARTMENT.

The income of the water works is derived from the sale of water, the charges therefor being grouped in three general divisions, viz. :

Annual charges : made at the beginning of the year and payable in advance.

Additional charges : made during the year for fractional parts thereof, or for specific purposes.

Metered charges : made at the close of each quarter for the sale of water by meter for the preceding three months.

The following table gives a summary of the work of the income department to December 31 :—

Total amount of all water bills rendered consumers in 1898	\$212,460.26
Total amount abated consumers in 1898	5,265.10
Apparent earnings of Water Department, 1898	\$207,195.16
<i>Amount carried forward</i>	\$207,195.16

<i>Amount brought forward</i>	\$207,195.16
Total amount collected by City Treasurer, Dec. 31, 1898	195,456.15
Uncollected water bills Dec. 31, 1898	<u>\$11,739.01</u>

Uncollected bills are apportioned as follows :—

Metered water charges due Jan. 1, 1899	\$11,700.95
Annual water charges	10.00
Additional water charges	28.06
	<u>\$11,739.01</u>

From the above exhibit it will be seen that the water charges for the year have been practically all settled, the uncollected bills for metered water not being due until January 1, 1899, and consumers being then allowed ten days for their payment.

Herewith is shown a table giving the causes for which abatements were authorized and the amount of each :—

ABATEMENT TABLE.

Vacant premises	\$2,141.84
Hose charges	1,475.00
Changes in ownership	208.20
Changes in premises, fixtures or occupation	520.15
Incorrect valuations and assessments	372.14
Incorrect meter registration and reading	406.94
Supplies discontinued	123.83
Uncollectible	17.00
	<u>\$5,265.10</u>

The large abatement on vacant premises is accounted for by the fact that all premises, whether occupied or not, are assessed unless the water has been shut off or fixtures sealed by this department. It has been the policy of the department to be strictly equitable and as liberal as the merits of each case would warrant.

In many cases hose charges were abated on account of the changes made in the method of street watering. A large number of hose services on which abatements were granted early in the season, were afterwards again assessed and paid for.

It is expected that the abatement table will decrease in amount hereafter when conditions become more fully adjusted to our present system of accounting.

The card system of accounts which was devised for the clerical work of the department has, after a year's thorough test, demonstrated its entire adaptability to every requirement. The system is very flexible, and no failure in its operation has occurred.

During the month of January a large amount of work preparatory to getting the more than ten thousand water bills into the hands of the consumers is required to be performed in a very few days, and the modern methods which have been adopted in conjunction with the collecting department, could not be carried out by the use of the old style of book accounts. Except during the period above mentioned, two assistants are sufficient to perform all the office duties, which include a large amount of bookkeeping and routine work incidental to the operation of the department. Two temporary assistants are required during a portion of the month of January.

INSPECTION DEPARTMENT.

The city has been thoroughly canvassed for the data necessary in making up the yearly water charges ; every building has been inspected for water fixtures at least once, and each street has been traversed a second time for the purpose of obtaining any changes in buildings that may have been made since the first round.

The duties of the inspector require him also to have a sharp lookout for defective fixtures causing waste of water, and to see that the necessary remedies are applied. It has been found that one inspector is sufficient to perform all the duties required in this department and to be of assistance in other branches of the work. Defective fixtures have been discovered in 179 premises and the customary waste notices have been issued. In all these cases the department regulations have been complied with, and generally with promptness, only 11 second notifications having been necessary.

It may be argued that little attention need be paid to the subject of waste of water on account of the practically unlimited supply back of us, but it should be remembered that all the water furnished to this city has to be pumped at the Chestnut Hill station, and a large portion of it again pumped at our own station; consequently, the greater the waste, the larger the quantity of water that has to be pumped, and the correspondingly larger cost of operating the works, for which we are assessed our share.

RENEWAL OF STREET MAINS.

As has been the case in all recent years, the energy of the department in its street work has been most largely devoted to the replacing of the old cement-lined water mains with iron pipe. The pipes thus substituted have in most cases been of larger diameter than the old mains, thereby benefiting the circulating system by furnishing a greater abundance of water than was previously afforded.

Effort has been made the past season to relay all the street mains which have previously given the department any trouble, with the resultant effect that the number of breaks has been reduced to a minimum, and damages have been very slight.

A number of breaks occurred early in January, as the result of the increased pressure on our mains from the introduction of the Metropolitan water supply, and several were caused in December by the addition of the College Hill district to our high-service system. There is now in our streets about nine miles of the cement-lined pipe, which is growing weaker every year, and a large portion of it should be replaced during the coming season.

The work has been carried on in harmony with the highway department, and several streets which were to be repaired by that department have first received my attention by laying new water mains so that the streets need not be again dug up and the surface injured by the water works. There has been relaid during the year 22,643 feet of pipe of various sizes, as shown in the tabular statement appended hereto. The old pipe in Broadway, from Central street to Cedar street, has been abandoned, the high-service main now furnishing the supply along that line.

I recommend that the cement-lined pipes in the following streets be replaced with iron mains the coming season:—Adrian street, Berkeley street, Bow street place, Broadway westerly from Cedar street, Chapel street, Conwell avenue, Cooney street, Curtis street, Curtis avenue, Elm street, Elm court, Grove street, Howe street, Jenny Lind avenue, Line street, Main street, Marion street, Miller street, Moreland street, Oxford street, Park street, Professors' row, Quincy street, School street, Smith avenue, Villa avenue, Winslow avenue, Wyatt street and sundry connections, making a total of about 16,000 feet.

EXTENSION OF STREET MAINS.

Less call than usual has been made during the year for extension of the pipe system into new streets, owing largely to real estate depression and falling off in building operations. Several hundred feet of mains were laid on construction account in Cross street and Temple street, at the time the renewal work was in progress at those points, for the purpose of establishing a circulation for the high service, thereby doing away with a number of dead ends. The connecting up of dead ends and perfecting the high service circulating system should be made a special feature of the work of the coming season. Dead ends in water mains have come to be considered not only disagreeable, but an actual source of danger to the health of those who draw their water supply from them, and a speedy effort should be made to free our entire system of them.

The works have been extended during the year by the addition of 7,536 feet of pipe of various sizes, as shown in the tabular statement thereof. The total pipe mileage of the city is approximately 78 miles, 2,442 feet.

I renew my recommendation of last year that high service circulating mains be laid in Medford street, Central street, Munroe street, Bow street, Elm street, Beech street, and Cedar street, a total length of about 5,550 feet. As stated in another place, these mains can be advantageously extended to form a portion of a high pressure fire-pipe line. I also recommend that a 12-inch main be laid in Broadway over the B. & M. R. R. at North Somerville to carry a supply easterly from the

48-inch Metropolitan main near that point ; also that a 20-inch main be laid in Broadway westerly from Willow avenue, for the purpose of giving to that district the benefit of the connection with the Metropolitan main.

Now that we have a large connection with the Metropolitan main in Webster avenue, it would, in my judgment, be wise to extend a line of 16-inch pipe from the Webster avenue main through Glass House court into the packing-house district, and I recommend that this main be laid the coming season. Pipe should also be laid from Clark street through the new Lincoln Park before the roadway is completed, the contract date for which is July 1st.

SERVICE DEPARTMENT.

The service department of the works has made 205 new connections during the year, laying therefor 7,651 feet of pipe. One of the above services was transferred from the mains of the City of Cambridge to our own. The total number of service pipes laid to December 31, 1898, is 9,806, and the total length of pipe used in making the connections is 61 miles, 3,536 feet.

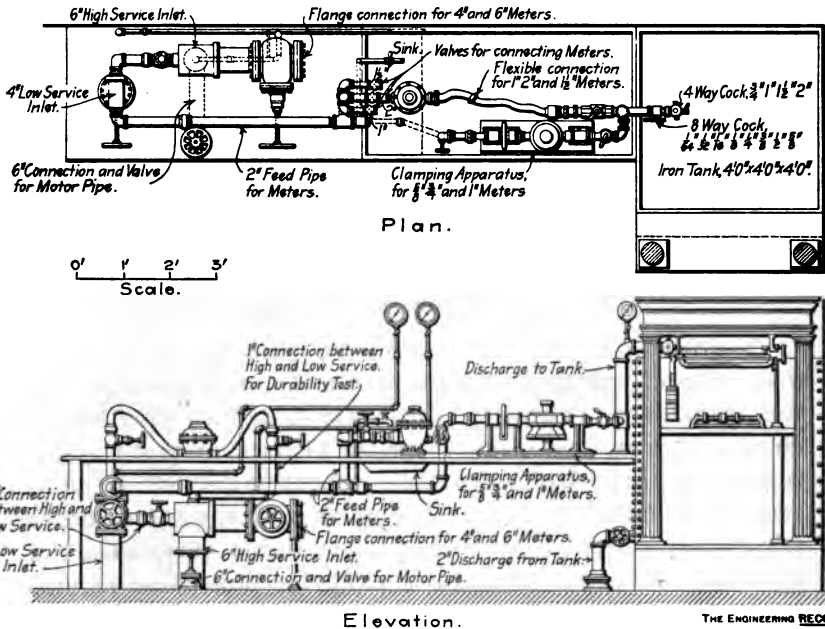
The usual amount of work has been required in the maintenance of the service system, repairing broken pipes, cleaning out sediment, lowering and raising boxes, etc.

METER DEPARTMENT.

The proposition made by the City of Boston for the disposition of their water meters in this city not having received your favorable consideration, they were all removed by this department early in the year, and new meters were set in their places. A number of requests have been made by consumers to take water by meter instead of on annual rates, but in accordance with your policy, meters have not been generally set except for manufacturing or business purposes, or where schedule rates could not readily be assessed.

The efficiency of the meter-testing plant constructed last year has been thoroughly demonstrated, and it has proved a valuable adjunct to the work of the department. The following

cut of the apparatus used is from the "Engineering Record" of October 8, which contains a description of the plant.



Meters are read monthly and billed quarterly. Other tables in connection with this report will give the revenue accruing from metered water and the class of premises on which meters are used.

The number of meters belonging to the City of Boston which were removed is	138
Number set in place thereof	134
Operating meters added during the year	12
Meters removed during the year	3
Total number of meters in operation Dec. 31, 1898	143
Motor and Elevator Clocks in operation Dec. 31, 1898	7
Number of meters added to commence Jan. 1, 1899	51
Total number meters set	194

METERS IN USE DECEMBER 31, 1898.

	$\frac{3}{8}$ "	$\frac{1}{2}$ "	1"	$1\frac{1}{2}$ "	2"	3"	4"	6"	Total
Crown	5	6	5	1	2	1	1	1	22
Gem							1		1
Hersey			10	1	3	3			17
Hersey Disc	1		10	1	3				15
Trident	11	19	16	5	4	1	2		58
Union		10	10	2	5	1	2		30
Totals	17	35	51	10	17	6	6	1	143

HYDRANTS, GATES, BLOW-OFFS, ETC.

The fire hydrants have been carefully inspected, imperfect ones replaced, necessary small repairs made, and their efficiency well maintained. The city has been divided into districts and competent men have been entrusted with the duty of examining monthly each hydrant in their respective districts, so as to reduce to a minimum the liability of their being out of order when most wanted. In connection with this duty, also, the men are instructed to watch sharply for protruding service boxes and main gate boxes, and to see that they are brought to the proper grade, thereby obviating the danger of accidental tripping over them.

Notwithstanding a city ordinance and department regulations, it has been a long-standing custom for the fire hydrants to be used for other than fire and water department purposes. Efforts have been made to regulate the use of the fire hydrants for these outside purposes, but without success. It may seem a hardship to deprive those who have been accustomed to use them of the privilege which they have so long enjoyed, but if, in your judgment, this freedom shall be continued, your superintendent should be relieved of the responsibility of any hydrants found in a damaged condition when they are needed for their legitimate fire purposes.

The gates of the water system are in good condition. Two 12-inch check valves have been set between the low and high-service systems ; one in Broadway, opposite Temple street,

and one in Holland street, opposite Gorham street. These valves are expected to open automatically in case the high service becomes disabled or cut off, and to allow the low pressure water to enter the mains, thus keeping the districts supplied ; they have already demonstrated their usefulness. One 14-inch valve has been set on the line of our force main in Broadway, opposite Cedar street, by the Metropolitan Water Works and at their expense. An additional 8-inch connection has been made with the Metropolitan Water Works 30-inch supply main in Gilman square.

Two new water-posts have been set for the convenience of the street-watering department—one on Broadway, near Willow avenue, and one on School street, opposite the Cummings school. The post on Highland avenue, near Willow avenue, has been moved to Grove street, near Highland avenue; the post opposite No. 241 Highland avenue has been moved to a point opposite Crocker street, and the post on Broadway, corner of Melvin street, has been moved to the opposite side of the street, on the park grounds.

It has been my policy to set these necessary structures, so far as the convenience of the watering carts will allow, abutting on public property, thereby removing the objections advanced by those who consider them unsightly and in the nature of a nuisance in front of private houses. One water-post was set on Wheatland street for the Metropolitan Park Commission at their expense.

Nineteen blow-offs have been constructed during the year. Fourteen of these have been placed on the dead ends of pipes and answer the useful purpose of clearing out the sediment which accumulates in such localities, and also of flushing the sewers. In my opinion, every water main in the city which cannot be made a portion of the direct circulating system, should be provided with a blow-off pipe, and I recommend that the number be largely increased the coming year.

The net increase in the number of fire hydrants during the year is 42; in main gates, 64; in water-posts, 3; in blow-offs, 19; check-valves, 2.

A relocation of all hydrants and water-posts has been made, from which it appears that 10 public hydrants should be

deducted from the lists previously published; 1 private hydrant and 1 water-post should be added. The following table is believed to be correct :—

Total number of public hydrants in the city	822
Total number of private hydrants in the city	41
Total number of gates	1,033
Total number of check-valves	2
Total number of water-posts	57
Total number of blow-offs	52

HIGH SERVICE.

The high service has been operated in an economical and satisfactory manner. During the year the pump has run 3,186 hours and 287,760,000 gallons of water have been pumped into the system. In December the Metropolitan Water Works made connection between their 16-inch delivery main and our force main in Broadway, opposite Cedar street, as a part of the general scheme of eventually supplying our high-service territory from the new Metropolitan reservoir in the Middlesex Fells. Until the completion of that reservoir, the Northern high-service district is to be supplied by the combined pumping of the several stations included therein, of which ours is one.

Advantage has been taken of these conditions to give the high-water service to the College Hill and Clarendon Hill sections of the city, by making a connection with the Metropolitan main at the corner of Boston avenue and Professors' row. This will give an immediate increase in the water pressure of about 30 pounds per square inch in the district thus supplied, and this pressure will be still further increased when the system reaches completion.

The elevation of the new Fells reservoir will be sufficient to give an average static pressure of about 100 pounds per square inch at the hydrants in the principal squares and business districts in the city, and I would recommend that during the coming season, lines of pipe for fire hydrant service be laid in the following streets, viz.: in Bow street and Washington street, from Summer street to Bonner avenue, connecting thereto

the fire hydrants in Bow street and Union square; in Medford street and Pearl street, connecting the hydrants in Gilman square and vicinity; in Holland street and Elm street, connecting with the hydrants in Davis square and vicinity; and in Broadway, from Temple street to Walnut street, connecting thereto the hydrants in that business district. An auxiliary fire-pipe line might also be extended through Medford street, from Washington street to the large packing houses, affording to their hydrant and sprinkler systems the advantage of a largely increased pressure. These pipes could easily be made a portion of a dual system, should it ever be considered advisable to establish one.

METROPOLITAN WATER.

On January 1st, 1898, the Mystic Lake water was shut off from our mains and the supply from the Metropolitan works was introduced. There is now in operation, one through line of 48-inch pipe from Chestnut Hill to Spot Pond, and another of the same size is operated as far as the Mystic reservoir on College Hill. We are at present receiving our supply from these mains through a 20-inch connection in Webster avenue and a 16-inch in Pearl street on the former line, and a 12-inch connection in Elm street on the latter line.

Branches have been provided for connections at other points when needed. The system has been in successful operation throughout the year, and water of excellent quality and abundant quantity has been furnished us. During the early part of the year some complaint was made of the oily or fishy taste of the water; inquiry at the office of the Metropolitan Water Board elicited the information that this was caused by the appearance of a harmless vegetable organism in the water which develops at times and cannot be foreseen or prevented. This disappeared in a short time and has since given no trouble.

The water is not at present so clear and colorless as that which came to us from the Mystic Lake, but is improving in that respect slowly; it is expected that when the new Wachusett reservoir is completed and the water has an opportunity to bleach, it will be very colorless and will show a favorable comparison with that obtained by any municipality.

The Nashua River was diverted into the Metropolitan system of water works on April 1st and has since been flowing through our streets and on tap in our houses; the quantity brought down being, on December 31st, approximately fourteen billion gallons, or nearly enough to supply this city alone for ten years at the present rate of consumption.

The following analysis of the water now furnished us and that formerly supplied by the Mystic system will be interesting, a comparison showing the greatly superior quality of the Metropolitan water for all domestic purposes.

ANALYSIS OF WATER MADE BY STATE BOARD OF HEALTH.
PARTS IN 100,000.

DATE OF EXAMINATION.	APPEARANCE.			ODOR.		RESIDUE ON EVAPORATION.			AMMONIA.			NITROGEN. AS				
	Turbidity.	Sediment.	Color.	Cold.	Hot.	Total.	Loss on Ignition.	Fixed.	Free.	ALBUMINOID.		Chlorine.	Nitrates.	Nitrites.	Hardness.	
										Total.	In Solution.					In Suspension.
METROPOLITAN WATER.																
1899. February 2.	Very Slight.	Very Slight.	0.33	Very Faintly Vegetable.	Faintly Vegetable.	4.10	1.35	2.75	.0012	.0124	.0102	.0022	.28	.0230	.0001	1.4
MYSTIC LAKE WATER.																
1897. December 1.	Very Slight.	Slight.	0.12	Distinctly Vegetable.	Distinctly Vegetable.	12.80	2.25	10.65	.0436	.0218	.0172	.0046	1.67	.0630	.0005	5.3

The sanitary analysis of water has for its object the determination of the amount, character, and condition of the organic matter and amount of mineral matter contained in solution and suspension in the water, for the purpose of ascertaining its fitness for potable purposes. In order to make the foregoing table more readily understood, the following explanation is given of the several determinations which are obtained in the chemical examination of surface water.

The general appearance of a water under examination is first observed for the character of its turbidity and the amount and nature of the sediment which it contains.

The color of water is due principally to organic matter produced from dissolving leaves and other vegetable matter, and is expressed by numbers which increase with the amount of color. The storage of water in large reservoirs for a long period of time has the effect of bleaching the water or eliminating from it a large amount of the coloring substances.

The odor of water varies at different seasons of the year and under different conditions. It is caused by infusoria and other micro-organisms, and is generally stronger when the water is heated.

Residue on evaporation is the solid matter, mineral and organic, remaining after evaporating water to dryness. By properly heating this residue the organic matter is burned off, the amount of which is indicated by the "loss on ignition." The fixed residue is the portion remaining after ignition and represents the amount of mineral matter in the water, being largely in the form of carbonates of lime, soda, etc.

Free ammonia is produced by the decomposition of organic matter. As ammonia in this form is one of the characteristic ingredients of sewage, its significance in a water analysis lies in the fact that its presence may indicate sewage pollution.

Albuminoid ammonia in suspension and in solution is derived generally from vegetable growths in the water, but may be of animal origin. It represents the nitrogenous elements of such matter before decomposition has begun.

Chlorine determinations express the amount of common salt in the water. Above a certain normal, which is, in the vicinity

THE NEW YORK
PUBLIC LIBRARY



BUILDING USED BY WATER DEPARTMENT FROM 1875 TO 1898. PROSPECT STREET, COR. SOMERVILLE AVENUE.

Building erected in Central Square in 1836, for Prospect Hill Primary and Grammar Schoolhouse.
Abandoned for school purposes in 1861, and moved to its present location.

Converted into trial justice court-room and a tenement in 1861 and continued as such until 1871.
Used as police station and lockup from 1871 to 1875.
Occupied by the Water Department from 1875 to 1898.

of Mystic Lake, about .35 part in 100,000, the presence of chlorine in surface waters is indicative of sewage pollution, and its excess may be considered a measure of such pollution.

Nitrogen is found in water in the form of nitrates and nitrites. The former is a combination of the completely oxidized form of the nitrogen of ammonia with alkalies or lime, and produces an excellent food which is readily absorbed by growing plants. In unpolluted water the nitrates are, therefore, always low and frequently entirely absent. High nitrates, in connection with nitrites or with free ammonia, indicate incomplete oxidization of organic matter.

Nitrites are formed by the combination of nitrous acid with a soda or other base. In unpolluted waters their presence is in very minute amounts. When the quantity is large, say .0005 part per 100,000, associated with high free ammonia, it is an evidence of considerable sewage pollution.

The hardness of water is expressed by numbers which indicate the degree of hardness shown in terms of an equivalent amount of carbonate of lime in parts per 100,000; the hardness increasing with the number.

An interpretation of the two analyses given herewith indicates a practical freedom from unsanitary conditions in the Metropolitan water, while the water from Mystic Lake shows a high degree of pollution.

BUILDINGS.

On the 28th of May a contract was awarded by you to Rufus E. Lord for the construction of a stable, wagon shed and workshop in connection with the pumping-station building on Cedar street, on plans furnished by Aaron H. Gould, architect, for the sum of \$10,173.00, exclusive of excavating, flooring, heating, plumbing, lighting and grading. The first earth was thrown out for the foundation on May 23rd, and the completed stable was occupied on October 15, the old building on Prospect street which had been used as headquarters for the department for twenty-one years, being abandoned and the keys turned over to the City Council on that date.

The new structure is a brick building, and consists of a stable of seven stalls, harness room, toilet room, closets and

office, connected with the pumping station, with commodious loft and sleeping room overhead. Adjoining this is a wagon shed, with wash-room opening out of the stable and a storage loft over the whole. At the extreme end of the wagon shed is a large storage room on the ground floor, and over this is the machine and carpenter shop of the department.

The stable, wash-room and work shop are heated by steam ; the entire building is lighted by electricity. Hot and cold water are in the harness, toilet, and wash-rooms, and a fire pipe with three hose attachments extends through the building.

The entire floor of the stable is composed of granolithic, and that of the wash-room is asphalt on a concrete base built on I beams. Under the wash-room is the manure pit, to which all the soil pipes lead so they can be readily cleaned, the stone floor of the stable proper being constructed on solid filling. The stall basins are constructed of granolithic, on original designs, and are very simple and cleanly, all iron work being dispensed with.

The building as a whole is of pleasing architecture, complete in all its appointments, and is a creditable addition to the public buildings of the city. A large amount of filling was needed to bring the surface up to the required grade ; the loam was stripped from the plot covered by the building, and has been used for a top dressing on the street side. The entire cost has been \$15,513.55, apportioned as follows : —

Building : —

Contract	\$10,173.00
Additions and alterations	775.36
Architect : plans and services	670.00
Floors and filling for same	767.43
Plumbing and heating	900.86
Electric wiring and fittings	184.09
Stable fittings	165.44
Sundry materials and expenses	122.02

Amount carried forward \$13,758.20

<i>Amount brought forward</i> .	\$13,758.20	
Labor: Excavating, filling and grading	373.72	
Materials: Filling and grading grounds	1,381.63	
		\$15,513.55

I recommend that the open lot between the buildings and Cedar street be filled in as the opportunity offers, and that the grounds be graded and laid out in an ornamental manner.

The pumping station building is in good repair; the standpipe should be painted inside and outside as soon as conditions will permit. The grounds about the standpipe have been still further improved by setting out trees and shrubs, furnished by florist Howard, and by next summer should present a very attractive appearance.

For further details concerning the work of the department during the year, I ask your attention to the tables appended hereto.

I beg to acknowledge the continued courtesy which you have shown me in the performance of the manifold duties entrusted to me, and also to express my appreciation of the interest shown in the work by all the employees under my charge.

FRANK E. MERRILL,
Superintendent.

LOCATIONS OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC., SET IN 1898.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER-POSTS.
			Size.	No. feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Allston st.	Hydrant		6"	6			Mathews	1					
Arlington st.	Hydrant		6"	6			Holyoke	1					
Ashland st.	Gate		6"	4	6"	1	B. M.	1					
Bedford st.	Hydrant		4"	25	4"	1			4"	1			
Belmont st.	Blow-off		6"	21			{ Mathews	2					
	Hydrants		8"	317			{ Holyoke	1					
Benton road	Con. with Westwood road	Con. with 8" pipe	{ 6"	7									
Benton road	Hydrant		6"	8			Holyoke	1					
Bond st.	Hydrant		6"	20			Chapman	1					
Bowers ave.	Main in Cottage ave.	Dead end, near Elm st.	6"	204	6"	1							
Broadway	Con. with Packard ave.	Con. with Paulina st.	12"	363									
Broadway	Hydrants		6"	19			{ Mathews	2					
Broadway	Gates				12"	2	{ Holyoke	1			12"	1	
Broadway	Check valve	Con. with 24" supply main	12"	102			Mathews	1					
Broadway	Con. with Temple st.		6"	8									
Broadway	Hydrant		2"	35	2"	1							
Broadway	Water-post	Pond in park	4"	200	4"	1							
Broadway	Chauncy ave.		6"	6									
Broadway pk.	Hydrant connection		6"		6"	1							
Broadway pk.	Gate		4"	53	4"	1			4"	1			
Columbia st.	Blow-off	Con. with Francis st.	6"	329	6"	1	Holyoke	2					
Conwell st.	Main in Highland ave.		6"	308	6"	1			6"	1			
Crescent st.	Blow-off	Con. with Chester ave.	6"	12	12"	1							
Cross st.	Main in Medford st.		6"		6"	1							
Cross st.	Gate		6"		12"	1							
Cross st.	Blow-off		6"		6"	1							
Curtis st.	Gates		{ 12"		6"	1							
Curtis st.	Hydrants		6"	32			{ Mathews	2					
							{ Holyoke	1					

LOCATIONS OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC. — Continued.

NAME OF STREET.	FROM	To	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER-POSTS.
			Size.	No. feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Dane ave.	Gate		6"	6	8"	1							
Dane ave.	Blow-off		6"	6	6"	1							
Durham st.	Gate		6"	20	6"	1							
Electric ave.	Hydrant		6"	25	6"	1							
Elmwood st.	Main in Curtis st.	Dead end	6"	7	6"	1							
Fairlee st.	Hydrant		6"	200	6"	1							
Fairview terrace	Gate		2"	7	2"	1							
Florence terrace	Main in Sycamore st.	Dead end	2"	136	2"	1							
Garfield ave.	Main in Jaques st.	Dead end	6"	84	6"	1							
Garrison ave.	Dead end	Easterly	6"	466	6"	1							
George st.	Main in Broadway	Dead end	6"	356	6"	1							
Gordonia road	Gate		6"	179	6"	1							
Greenwood ter.	Main in Highland ave.	Con. with old pipe	2"	12	2"	1							
Hanson st.	Main in Beacon st.	Dead end	6"	30	6"	1							
Hanson st.	Hydrant		4"	10	4"	1							
Harding st.	Gate		6"	7	6"	1							
Hathorn st.	Blow-off		6"	32	6"	1							
Highland ave.	Hydrant		6"	16	6"	1							
Hinckley st.	Hydrant		4"	25	4"	1							
Holland st.	Hydrant		6"	250	6"	1							
Holland st.	Blow-off		6"	7	6"	1							
Holland st.	Check valve		6"	207	6"	1							
Holland st.	Blow-off		6"	368	6"	1							
Hunting st.	Gate		6"	290	6"	1							
Jaques st.	Blow-off		6"	7	6"	1							
Jasper st.	Gate		6"	250	6"	1							
Josephine ave.	Con. with Pearl st.	8' S. from S. line Virginia st.	6"	7	6"	1							
Kidder ave.	Hydrant		6"	32	6"	1							
Lawrence st.	Con. with Liberty ave.	Con. with Richardson st.	8"	207	8"	1							
Leland st.	Main in Hinckley st.	Con. with Dane ave.	8"	368	8"	1							
Liberty ave.	Main in Washington st.	N. line Kidder ave.	8"	290	8"	1							
	Con. with Francesca ave.		6"	7	6"	1							

LOCATIONS OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC. — Continued.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW- OFFS.		CHECK VALVES.		WATER-POSTS.
			Size.	No. feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Linden circle	Main in Linden ave.	Dead end	2"	163	2"	1	Mathews	1					
Lowell st.	Hydrant	Dead end	6"	7									
Main st.	Con. with Fremont st.		2"	116	6"	1			6"	1			
Medford st.	Blow-off		6"	8									
Mt. Vernon ave.	Gate		6"	20	2"	1	Holyoke	1	2"	1			
Mt. Vernon st.	Hydrant		6"	4									
Murray st.	Blow-off		6"	30	4"	1	Mathews	1	4"	1			
Newbury st.	Hydrant		4"	15	12"	1							
Norfolk st.	Blow-off		12"	69									
North st.	Main in Broadway	Dead end	6"	37	4"	1	Mathews	1	4"	1			
Oak st.	Blow-off		4"	30	12"	1							
Packard ave.	Gate		10"	31									
Pauline st.	Con. with Broadway		6"	19			Mathews	1					
Pearl st.	Hydrant	Con. with 8" pipe	12"	132	12"	1							
Pearl st.	Con. with Marshall st.		8"	98	8"	1							
Professors' row	End of 8" pipe	Con. with Met. H. S. main, Boston ave.	12"	163									1
School st.	Water post		8"	15									
Shawmut st.	Hydrant		2"	32	2"	1	Mathews	1					
Shawmut pl.	Blow-off		6"	7	6"	1			6"	1			
Somerville ave.	Blow-off		6"	16	6"	1			6"	1			
Temple st.	Blow-off		6"	16	8"	1			6"	1			
Temple st.	H. S. main in Broadway	H. S. main in Heath st.	8"	439									
			6"	92									
Temple st.	Gates				12"	2	Holyoke	2					
Thorndike st.	Hydrant		6"	7			Mathews	1					
Tremont st.	Blow-off		4"	15	4"	1	Mathews	1	4"	1			
Victoria st.	Hydrant		6"	7			Holyoke	1					
Vine st.	Gate		6"	7	6"	1							
Vine st.	Hydrant		6"	15			Corey	1					

LOCATIONS OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC. — *Concluded.*

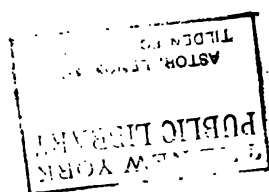
NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER-POSTS.
			Size.	No. feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Virginia st.	Con. with Jasper st.	Con. with old pipe Main in Fairmount ave.	6"	33	6"	1	Holyoke	1					
Waldo st.	Main in Highland ave.		6"	196	6"	2							
Watson st.	Main in Broadway		6"	313	6"	2							
Webster ave.	Blow-off		6"	13	6"	1	B. M.	1	6"	1			
Wesley pk.	Hydrant	Con. with 4" pipe in Wheeler st.	6"	6	6"								
Wheeler st.	Con. with Mt. Vernon st.		6"	34	4"	1							
Willow pl.	Blow-off		4"	20	4"	1			4"	1			
Wilson ave.	Blow-off		4"	10	4"	1	Mathews B. M.	1	4"	1			
Windsor road	Main in Willow ave.	Main in Gordonia road	6"	632	6"	2							
Winthrop ave.	Hydrant		6"	6	6"	1							
Winthrop ave.	Gate							47		19		2	2
				7,836		66							

LOCATION AND LENGTH OF PIPES RELAID, GATES AND HYDRANTS RESET, 1898.

NAME OF STREET.	FROM	To	PIPE LAID.			GATES.			HYDRANTS.					
			Size.		Length.	Aband.	Reset.		Aband.	Reset.				
			Aband.	Relaid.			No.	Size.		No.	Kind.	No.	Kind.	
			No.	No.	No.	Kind.	No.							
Allston st. Allston st. Arlington st. Ashland st. Belmont st. Belmont st. Belmont st. Broadway Broadway Broadway Broadway Broadway pl. Cameron ave. Chester ave.	Main in Cross st.	Con. with Shawmut pl.	4"	6"	577	4"	1	6"	1					
	Hydrant connection	Con. with Lincoln st.	4"	6"	4	4"	2	6"	2					
	Con. with Franklin st.	Con. with Summer st.	4"	6"	497	3"	6"	6"						
	W. line Sartwell ave.	12' S. from Summer st.	4"	8"	1,221	4"	1	8"	1					
	6' N. from Somerville ave.	Hydrant connection	4"	6"	4	4"	2	12"	3		B. M.	1	B. M.	
	Con. with Packard ave.	Dead end, near Alewife Brook	4 1/2 S. 10"	10"	2,174	8"	1							
			6"	6"	498									
			10"	6"	23						B. M.	3	{ Holyoke Mathews }	
			8"	12"	133	8"	1				Holyoke	1	Mathews	
			Con. with Temple st.	8"	12"	459	8"	2	12"	1		B. M.	2	B. M.
Clarendon ave. Crescent st. Cross st. Curtis st. Curtis st. Cutter ave. Dane ave. Dane ave. Durham st. Durham st. Elmwood st. Fairlee st. Fairlee st.	Hydrant connection	Dead end	4"	6"	16	3"	1	4"	1		B. M.	1		
		Dead end	4"	6"	25	6"	1	10"	1					
		Con. with H. S. main, Cross st.	4"	6"	735	4"	1	6"	1					
		50' N. from Wash'ton st.	4"	8"	19	6"	1	8"	1		B. M.	1	B. M.	
		Con. with Allston st.	4"	12"	550	6"	2	12"	2					
		Con. with Professors' row	4"	12"	227	6"	2	12"	2					
			6"	12"	1,790						B. M.	2	{ B. M. Holyoke }	
			6"	6"	24						B. M.	1	B. M.	
		Con. with iron pipe	4"	6"	422	4"	1	6"	1					
		Con. with Leland st.	4"	8"	570	4"	2	8"	2		B. M.	1	B. M.	

LOCATION AND LENGTH OF PIPES RELAID, GATES AND HYDRANTS RESET, 1898.—Continued.

NAME OF STREET.	FROM	To	PIPE LAID.		GATES.				HYDRANTS.		
			Size.	Re-laid.	Length.	Aband.		Reset.	Aband.		Reset.
						Size.	No.		Kind.	No.	
Farm lane	Con. with Broadway		6"	8"	30	6"	1	1			
Florence st.	Con. with Pearl st.		4"	6"	19	4"	1	6"			
Georget st.	S. line Broadway	Con. with Lincoln ave.	3"	6"	295			1			
Gerson st.	Con. with Holland st.	Main in Vine st.	6"	8"	16		1	6"			
Hanson st.	Con. with Durham st.		4"	6"	573				Holyoke	1	Holyoke
Hastings st.	Hydrant connection		4"	6"	15						
Hathorn st.	Con. with Arlington st.		4"	6"	13						
Heath st.	Con. with Temple st.		6"	8"	15						
Hinckley st.	Hydrant connection	Con. with Lawrence st.	6"	8"	20				Chapman	2	
Holland st.	Main in Broadway	Main in Broadway	10"	8"	371	6"	1	8"			
	Con. with Winter st.			12"	2,380	10"	4	12"			
Holland st.	Hydrant connection		6"	6"	74						
Irving st.	Con. with Holland st.		8"	8"	5						
Jacques st.	W. line Temple st.	Con. with iron pipe	4"	6"	529	4"	1	6"			
Jay st.	Con. with Holland st.		6"	6"	25						
Lincoln ave.	End 6" pipe near Lincoln st.	Con. with Mt. Vernon st.	4"	6"	426	4"	1	6"			
Lincoln ave.	Hydrant connection		4"	6"	4						
Mt. Vernon st.	N. line Washington st.	Main in Perkins st.	6"	10"	1,075	6"	2	10"			
Mt. Vernon st.	Hydrant connection		4"	6"	9						
Myrtle st.	Con. with Pearl st.		6"	8"	50	6"	1	8"			
Newbury st.	Con. with Holland st.		6"	8"	25	6"	1	8"			
Packard ave.	Con. with Professors' row	Northerly	12"	12"	22						
Paulina st.	Con. with Holland st.		6"	10"	42						
Pearl st.	Con. with Crescent st.	Con. with Myrtle st.	8"	12"	754	8"	1	12"			
Pearl st.	Hydrant connection		4"	6"	326	4"	1	6"			
School st.	Con. with Medford st.		4"	6"	7						
Shawmut st.	Con. with L. S. main, Cross st.	18' S. from N. line Washington st.	6"	6"	14	4"	1	8"			
			4"/8"	8"	640	8"	1				





BUILDING USED BY WATER DEPARTMENT FROM 1875 TO 1898. PROSPECT STREET, COR. SOMERVILLE AVENUE.

Building erected in Central Square in 1836, for Prospect Hill Primary and Grammar Schoolhouse. Abandoned for school purposes in 1861, and moved to its present location.

Converted into trial justice court-room and a tenement in 1861 and continued as such until 1871. Used as police station and lockup from 1871 to 1875. Occupied by the Water Department from 1875 to 1898.

HYDRANTS—CONSTRUCTION ACCOUNT.

New hydrants have been set in the following locations:—

Allston street, 212 feet south from Cross street, 6-inch Mathews.

Arlington street, 36 feet from Hathorn street, 6-inch Holyoke.

Ashland street, 268 feet south from Summer street, 4-inch

Boston Machine.

Belmont street, opposite Pitman street, 6-inch Mathews.

Belmont street, 10 feet north from Belmont place, 6-inch

Mathews.

Belmont street, 243 feet south from Summer street, 6-inch

Holyoke.

Benton road, corner of Cambria street, 6-inch Holyoke.

Benton road, 28 feet south from Highland avenue, 6-inch

Chapman.

Bond street, 205 feet north from Heath street, 6-inch Chapman.

Broadway, 32 feet east from Westminster street, 6-inch Mathews.

Broadway, opposite Watson street, 6-inch Mathews.

Broadway, 138 feet west from Waterhouse street, 6-inch

Holyoke.

Broadway, 115 feet west from Rogers avenue, 6-inch Mathews.

Conwell street, 6 feet south from Highland avenue, 6-inch

Holyoke.

Conwell street, 3 feet north from Francis street, 6-inch Holyoke.

Curtis street, 24 feet south from Professors' row, 6-inch

Mathews.

Curtis street, 3 feet south from Electric avenue, 6-inch

Mathews.

Curtis street, 6 feet north from Broadway, 6-inch Holyoke.

Durham street, opposite Skehan street, 6-inch Holyoke.

Elmwood street, 9 feet south from Holland street, 6-inch Coffin.

Garrison avenue, 235 feet south from Broadway, 4-inch Boston

Machine.

Hanson street, 12 feet south from Village street, 6-inch Holyoke.

Hanson street, 6 feet south from Skehan street, 6-inch Holyoke.

Highland avenue, 214 feet east from Spring Hill terrace, 6-inch

Mathews.

Hinckley street, 106 feet south from Broadway, 4-inch Boston

Machine.

Holland street, 3 feet south from Paulina street, 6-inch Mathews.
Jasper street, 5 feet south from Virginia street, 6-inch Mathews.
Josephine avenue, 397 feet north from Morrison street, 4-inch Boston Machine.

Leland street, 14 feet south from Dane avenue, 6-inch Chapman.
Liberty avenue, 3 feet north from Kidder avenue, 6-inch Mathews.

Lowell street, 163 feet south from Highland avenue, 6-inch Mathews.

Mt. Vernon street, 246 feet north from Washington street, 6-inch Holyoke.

Newbury street, 15 feet south from Holland street, 6-inch Mathews.

North street, 18 feet north from Broadway, 6-inch Mathews.

Pearl street, 50 feet west from Crescent street, 6-inch Mathews.

Shawmut street, 153 feet north from Shawmut place, 6-inch Mathews.

Temple street, 124 feet south from Sewall street, 6-inch Holyoke.

Temple street, 5 feet south from Sydney street, 6-inch Holyoke.

Temple street, corner of Broadway, 6-inch Mathews.

Temple street, 10 feet south from Derby street, 6-inch Mathews.

Thorndike street, 4 feet south from Holland street, 6-inch Mathews.

Victoria street, 255 feet south from Broadway, 6-inch Holyoke.

Vine street, 15 feet east from Beacon street, 6-inch Corey.

Waldo street, 6 feet north from Highland avenue, 6-inch Holyoke.

Wesley park, 145 feet north from Bow street, 4-inch Boston Machine.

Windsor road, 86 feet east from Willow avenue, 6-inch Mathews.

Winthrop avenue, 6 feet north from Broadway, 4-inch Boston Machine.

HYDRANTS. — RENEWAL ACCOUNT.

The following changes have been made in the kind and location of hydrants :—

Belmont street, 4-inch B. M. hydrant, set 421 feet south from Belmont place, and 4-inch B. M. hydrant removed from 430 feet south from Belmont place.

- Broadway, 6-inch Mathews hydrant, set opposite Temple street, and 4-inch Holyoke hydrant removed from opposite Marshall street.
- Broadway, 4-inch B. M. hydrant, set 20 feet west from Farm lane, and 4-inch B. M. hydrant removed from 118 feet west from Farm lane.
- Broadway, 6-inch Holyoke hydrant, set 237 feet east from Endicott avenue, and 4-inch B. M. hydrant removed from 174 feet east from Endicott avenue.
- Broadway, 6-inch Holyoke hydrant, set 9 feet west from Garrison avenue, and 4-inch B. M. hydrant removed from 9 feet west from Victoria street.
- Broadway, 6-inch Mathews hydrant, set 330 feet west from Waterhouse street, and 4-inch B. M. hydrant removed from same location.
- Crescent street, 4-inch B. M. hydrant, set 80 feet south from Hadley place, and 4-inch B. M. hydrant removed from opposite Hadley place.
- Curtis street, 4-inch B. M. hydrant, set 44 feet north from house No. 54, and 4-inch B. M. hydrant removed from 64 feet north from Electric avenue.
- Curtis street, 6-inch Holyoke hydrant, set 6 feet south from Raymond avenue, and 4-inch B. M. hydrant removed from opposite Raymond avenue.
- Dane avenue, 4-inch B. M. hydrant, set 162 feet west from Leland street, and 4-inch B. M. hydrant removed from 81 feet west from Leland street.
- Durham street, 4-inch Bigelow hydrant, set 5 feet west from Hanson street, and 4-inch Bigelow hydrant removed from 50 feet west from Hanson street.
- Hanson street, 4-inch Holyoke hydrant, set 9 feet south from Nevada avenue, and 4-inch Holyoke hydrant removed from 38 feet north from Skehan street.
- Holland street, 6-inch Coffin hydrant, set 8 feet north from B. & M. R. R. crossing, and 6-inch Chapman hydrant removed from 170 feet south from Wallace street.
- Holland street, 6-inch Mathews hydrant, set 5 feet south from Jay street, and 4-inch B. M. hydrant removed from 78 feet south from Newbury street.

Holland street, 6-inch Mathews hydrant, set 94 feet south from Claremon street, and 4-inch B. M. hydrant removed from 115 feet south from Claremon street.

Temple street, 6-inch Mathews hydrant, set 10 feet north from Jaques street, and 6-inch Mathews hydrant removed from 50 feet north from Jaques street.

Vine street, 6-inch Chapman hydrant, set opposite Eliot street, and 6-inch Chapman hydrant removed from 173 feet east from Beacon street.

Walnut street, 6-inch B. M. hydrant, set opposite Veazie street, and 6-inch B. M. hydrant removed from 30 feet south from Veazie street.

Broadway, 4-inch B. M. hydrant, removed from 11 feet west from Norwood avenue.

Heath street, 6-inch Chapman hydrant, removed from corner of Bond street.

Heath street, 6-inch Chapman hydrant, removed from 50 feet west from Temple street.

Holland street, 6-inch Coffin hydrant, removed from 89 feet north from Thorndike street.

Holland street, 6-inch Coffin hydrant, removed from 82 feet south from Elmwood street.

All hydrants have been thoroughly inspected and necessary repairs made. All have been painted and are now in excellent condition. Expense of maintenance and repairs of hydrants, for inspection, labor and materials used in repairs, teaming, painting, etc., has been \$689.33.

RECAPITULATION.

Number of public hydrants set in 1898 . . .	65
“ “ private “ “ “ “ . . .	0
Total number of hydrants set in 1898 . . .	65
Number of hydrants removed in 1898 . . .	23
Net increase in number of public hydrants, 1898 .	42
“ “ “ “ private “ “ . . .	0
Total net increase in number of hydrants, 1898 .	42
Total number of public hydrants in the city . .	822
“ “ “ private “ “ “ “ . . .	41
Total number of all hydrants in the city, January 1, 1899	863

LOCATION OF HYDRANTS.

Adams street, 11 feet south from Broadway.
Adams street, 221 feet south from Broadway.
Adams street, 266 feet north from Medford street.
Adams street, 10 feet north from Medford street.
Adrian street, 106 feet east from Marion street.
Adrian street, 220 feet south from Joseph street.
Allen street, 9 feet north from Charlestown street.
Albion street, 74 feet west from Centre street.
Albion street, 396 feet west from Central street.
Albion street, 217 feet east from Lowell street.
Albion street, 421 feet east from Cedar street.
Aldersey street, 276 feet west from Walnut street.
Alpine street, 280 feet east from Cedar street.
Alpine street, 76 feet west from Princeton street.
Alpine street, 298 feet west from Lowell street.
Allston street, 212 feet east from Cross street.
Allston street, 10 feet west from Shawmut place.
Ames street, 123 feet west from Central street.
Appleton street, 3 feet east from Clifton street.
Appleton street, 41 feet west from Willow avenue.
Arlington street, 36 feet east from Hathorn street.
Arthur street, 29 feet south from Broadway.
Ash avenue, 300 feet north from Meacham street.
Ashland street, 268 feet south from Summer street.
Auburn avenue, 239 feet west from Cross street.
Auburn avenue, 481 feet west from Cross street.
Austin street, 81 feet south from Mystic avenue.
Austin street, 66 feet north from Benedict street.
Austin street, 2 feet north from Broadway.
Avon street, 233 feet east from Central street.
Avon street, 572 feet west from School street.
Banks street, 310 feet south from Summer street.
Bartlett street, 230 feet south from Broadway.
Bartlett street, 15 feet south from Ames street.
Bartlett street, 10 feet south from Robinson street.
Beacon street, 316 feet west from Greenwood terrace.

Beacon street, 10 feet east from Stanford terrace.
Beacon street, 46 feet west from Sacramento street.
Beacon street, 15 feet west from Kent street.
Beacon street, 4 feet west from Ivaloo street.
Beacon street, 68 feet east from Park street.
Beacon street, 18 feet east from Durham street.
Beacon street, 26 feet east from Washington street.
Beacon street, 90 feet east from Calvin street.
Beacon street, 194 feet east from Calvin street.
Beacon street, 28 feet west from Buckingham street.
Beacon street, 208 feet east from Buckingham street.
Beacon street, 6 feet east from Concord avenue.
Beech street, 4 feet south from Atherton street.
Beech street, 31 feet east from Spring street.
Belmont street, 206 feet north from Spring Hill terrace.
Belmont street, 241 feet north from Summer street.
Belmont street, 243 feet south from Summer street.
Belmont street, 10 feet north from Belmont place.
Belmont street, 222 feet south from Belmont place.
Belmont street, 185 feet north from Somerville avenue.
Benedict street, 33 feet east from Mystic street.
Bennett street, 166 feet east from Prospect street.
Benton road, 2 feet north from Cambria street.
Benton road, 28 feet south from Highland avenue.
Berkeley street, 8 feet east from Central street.
Berkeley street, 150 feet east from Hersey street.
Berkeley street, 28 feet west from School street.
Berkeley street, 212 feet west from Hersey street.
Billingham street, 126 feet north from William street.
Bolton street, 203 feet north from Houghton street.
Bolton street, 3 feet south from Oak street.
Bonair street, 26 feet west from Cross street.
Bonair street, 90 feet east from Autumn street.
Bonair street, 121 feet east from Arthur street.
Bonair street, 67 feet east from Dana street.
Bonair street, opposite Melvin street.
Bonair street, 117 feet east from Walnut street.
Bond street, 63 feet south from Jaques street.

Bonner avenue, 171 feet north from Washington street.

Boston avenue, 110 feet south from bridge over Mystic river.

Boston avenue, 492 feet north from Gove street.

Boston street, 207 feet west from Bigelow street.

Boston street, 37 feet east from Bigelow street.

Boston street, 6 feet north from High street.

Bow street, 33 feet east from Walnut street.

Bow street, 23 feet west from Wesley park.

Bow street, 25 feet east from Bow street place.

Bowdoin street, 65 feet north from Fremont avenue.

Bradley street, 26 feet south from Veazie street.

Brastow avenue, 202 feet east from Porter street.

Brastow avenue, 115 feet west from Lowell street.

Broadway, 50 feet east from Mt. Pleasant street.

Broadway, 20 feet west from George street.

Broadway, 21 feet west from Broadway place.

Broadway, 33 feet east from Cutter street.

Broadway, 7 feet east from Glen street.

Broadway, 21 feet east from Rush street.

Broadway, 15 feet west from Cross street.

Broadway, 7 feet west from Autumn street.

Broadway, 6 feet west from Montgomery avenue.

Broadway, 33 feet west from Walnut street.

Broadway, 4 feet east from Sargent avenue.

Broadway, 3 feet west from Melvin street.

Broadway, 157 feet west from Grant street.

Broadway, 117 feet east from Marshall street.

Broadway, 62 feet west from Marshall street.

Broadway, 3 feet west from School street.

Broadway, corner Thurston street.

Broadway, 209 feet east from Central street.

Broadway, 104 feet west from Norwood avenue.

Broadway, 20 feet west from Farm lane.

Broadway, 288 feet east from Cedar street.

Broadway, opposite Cedar street.

Broadway, 171 feet west from Wilson avenue.

Broadway, 115 feet west from Rogers avenue.

Broadway, 236 feet west from Liberty avenue.
Broadway, 175 feet west from Elm street.
Broadway, 6 feet west from Billingham street.
Broadway, 9 feet west from Packard avenue.
Broadway, 32 feet east from Westminster street.
Broadway, 237 feet east from Endicott avenue.
Broadway, 6 feet west from Endicott avenue.
Broadway, 9 feet west from Garrison avenue.
Broadway, 138 feet west from Waterhouse street.
Broadway, 330 feet west from Waterhouse street.
Broadway park, near the pond.
Brook street, 18 feet west from Rush street.
Browning road, 302 feet west from Sycamore street.
Browning road, 136 feet east from Central street.
Buckingham street, 2 feet south from Dimick street.
Burnside avenue, 259 feet north from Elm street.
Burnside avenue, 120 feet south from Summer street.
Cameron avenue, 166 feet south from Holland street.
Cameron avenue, opposite Mead street.
Cameron avenue, 26 feet south from Glendale avenue.
Campbell park, 258 feet west from Meacham street.
Cedar street, 226 feet south from Sartwell avenue.
Cedar street, 98 feet north from Sartwell avenue.
Cedar street, 61 feet north from Hall street.
Cedar street, 12 feet north from Highland avenue.
Cedar street, 10 feet north from Albion street.
Cedar street, 124 feet south from Warwick street.
Cedar street, 50 feet north from Clyde street.
Cedar street, 24 feet south from Murdock street.
Cedar street, 270 feet south from Broadway.
Central street, 50 feet south from Broadway.
Central street, 6 feet north from Forster street.
Central street, 9 feet north from Vernon street.
Central street, 187 feet south from Vernon street.
Central street, 6 feet north from Albion street.
Central street, 1 foot south from Summer street.
Chandler street, 16 feet south from Broadway.
Chandler street, 206 feet north from Park avenue.

Charles street, 183 feet south from Washington street.
Charnwood road, 79 feet west from Gordon road.
Chauncey avenue, 8 feet north from Jaques street.
Cherry street, 7 feet south from Sartwell avenue.
Cherry street, 254 feet north from Sartwell avenue.
Cherry street, 252 feet north from Summer street.
Cherry street, 26 feet south from Highland avenue.
Chester street, 15 feet north from Chester place.
Chestnut street, 482 feet south from Poplar street.
Chestnut street, 246 feet south from Poplar street.
Church street, 9 feet south from Summer street.
Church street, 300 feet south from Summer street.
Church street, 29 feet north from Somerville avenue.
Church street, 16 feet south from Somerville avenue.
City stables, east end of yard.
Claremon street, 255 feet south from Holland street.
Clarendon avenue, 253 feet south from Broadway.
Clarendon avenue, opposite house No. 66.
Clark street, 200 feet west from Newton street.
Clark street, 416 feet west from Newton street.
Clyde street, 250 feet east from Cedar street.
Clyde street, opposite Murdock street.
Columbia street, 3 feet south from Beach avenue.
Columbia street, 8 feet south from Columbia court.
College avenue, 700 feet north from Broadway.
Columbus avenue, 150 feet east from Bonner avenue.
Columbus avenue, 118 feet west from Bonner avenue.
Columbus avenue, 35 feet west from Stone avenue.
Columbus avenue, 8 feet east from Walnut street.
Concord avenue, 154 feet west from Prospect street.
Concord avenue, 76 feet east from Concord square.
Concord avenue, on east line of Knapp school.
Concord avenue, 313 feet east from Springfield street.
Concord avenue, 24 feet east from Springfield street.
Concord avenue, 7 feet east from Marion street.
Concord avenue 6 feet south from Hammond street.
Concord avenue, 20 feet east from Wyatt street.
Conwell avenue, 460 feet west from Curtis street.

Conwell street, 6 feet south from Highland avenue.
Conwell street, 3 feet north from Francis street.
Cook street, 74 feet north from Wyatt street.
Cottage avenue, 206 feet west from Russell street.
Craigie street, 216 feet south from Summer street.
Craigie street, 232 feet north from Kimball street.
Craigie street, 77 feet south from Kimball street.
Craigie street, 126 feet north from Somerville avenue.
Crescent street, 80 feet south from Hadley place.
Crocker street, 4 feet south from Highland avenue.
Crocker street, north corner Crown street.
Cross street, north corner Otis street.
Cross street, 6 feet north from Pearl street.
Cross street, 32 feet north from Cross Street place.
Cross street, 62 feet north from Flint street.
Cross street, 16 feet north from Gilman street.
Cross street, 13 feet south from Auburn avenue.
Cross street, 39 feet north from Allston street.
Curtis street, 6 feet north from Broadway.
Curtis street, 3 feet south from Electric avenue.
Curtis street, 137 feet north from Ware street.
Curtis street, 3 feet south from Raymond avenue.
Curtis street, 34 feet south from Professors' row.
Curtis street, 183 feet north from Professors' row.
Cutter avenue, 11 feet south from Highland avenue.
Cutter square, 95 feet west from Cutter avenue.
Cutter street, 444 feet south from Broadway.
Dane avenue, 162 feet west from Leland street.
Dane avenue, 169 feet east from Dane street.
Dane street, 9 feet north from Tyler street.
Dane street, 260 feet south from Skehan street.
Dane street, 55 feet north from Skehan street.
Dartmouth street, 288 feet south from Broadway.
Dartmouth street, 53 feet south from Evergreen avenue.
Dartmouth street, 171 feet north from Medford street.
Day street, 10 feet south from Elm street.
Day street, 195 feet south from Herbert street.
Day street, 4 feet north from Orchard street.

Dell street, 255 feet west from Glen street.
Delaware street, 246 feet east from Aldrich street.
Derby street, 400 feet east from Temple street.
Dickinson street, 20 feet east from Beacon street.
Dover street, 203 feet south from Elm street.
Dover street, 312 feet north from Orchard street.
Dover street, 3 feet north from Orchard street.
Durham street, opposite Skehan street.
Durham street, 5 feet west from Hanson street.
Edmands street, 15 feet south from Broadway.
Ellsworth street, 7 feet west from Rush street.
Elm street, 59 feet west from Craigie street.
Elm street, 17 feet west from Porter street.
Elm street, 28 feet east from Linden avenue.
Elm street, 11 feet east from Mossland street.
Elm street, 9 feet west from Cedar street.
Elm street, 153 feet east from Cherry street.
Elm street, 110 feet west from Cherry street.
Elm street, 14 feet east from Burnside avenue.
Elm street, 104 feet east from Willow avenue.
Elm street, 20 feet east from St. James avenue.
Elm street, 9 feet west from Elston street.
Elm street, 90 feet west from Windom street.
Elm street, 25 feet west from Russell street.
Elm street, 11 feet west from Grove street.
Elm street, 82 feet west from Chester street.
Elm street, 12 feet north from Winter street.
Elm street, 6 feet south from Morrison street.
Elm street, 53 feet west from Francesca avenue.
Elm street, opposite Kenwood street.
Elm street, 100 feet west from Broadway.
Elmwood street, 9 feet south from Holland street.
Elmwood street, 300 feet north from Harrison street.
Eliot street, 3 feet east from Park street.
Endicott avenue, 422 feet south from Broadway.
Evergreen avenue, 8 feet east from School street.
Everett avenue, 5 feet west from Cross street.
Everett avenue, 9 feet east from Dana street.

Everett avenue, 449 feet west from Cross street.
Everett street, opposite Emerson street.
Fairlee street, 134 feet west from Cherry street.
Fairmount avenue, opposite Watson street.
Farragut avenue, 258 feet south from Broadway.
Farragut avenue, 537 feet south from Broadway.
Fenwick street, 40 feet north from Broadway.
Fiske avenue, 120 feet east from Hinckley street.
Fitchburg street, 395 feet east from Linwood street.
Flint street, 18 feet east from Flint avenue.
Flint street, 59 feet east from Cross street.
Flint street, 30 feet west from Franklin street.
Florence street, 206 feet south from Perkins street.
Florence street, 7 feet south from Pearl street.
Florence street, 453 feet north from Washington street.
Forster street, opposite Tennyson street.
Fosket street, 6 feet west from Bay State avenue.
Francesca avenue, 305 feet east from Elm street.
Francesca avenue, 7 feet west from Liberty avenue.
Franklin street, 14 feet north from Arlington street.
Franklin street, 76 feet south from Webster street.
Franklin street, 156 feet south from Pearl street.
Franklin street, 80 feet south from Oliver street.
Franklin street, 87 feet south from Palmer avenue.
Franklin street, 29 feet north from Washington street.
Fremont street, 82 feet north from Main street.
Fremont street, 343 feet north from Main street.
Fremont street, 287 feet north from Meacham street.
Fremont street, 25 feet north from E. Albion street.
Frost avenue, 75 feet east from Sherman street.
Fountain avenue, 280 feet west from Glen street.
Garden court, 357 feet south from Somerville avenue.
Garfield avenue, 24 feet south from Mystic avenue.
Garrison avenue, 235 feet south from Broadway.
Gibbens street, 202 feet west from Central street.
Gibbens street, 129 feet west from Benton avenue.
Gilman square, opposite Marshall street.
Gilman street, 103 feet east from Walnut street.

Holland street, 6-inch Mathews hydrant, set 94 feet south from Claremon street, and 4-inch B. M. hydrant removed from 115 feet south from Claremon street.

Temple street, 6-inch Mathews hydrant, set 10 feet north from Jaques street, and 6-inch Mathews hydrant removed from 50 feet north from Jaques street.

Vine street, 6-inch Chapman hydrant, set opposite Eliot street, and 6-inch Chapman hydrant removed from 173 feet east from Beacon street.

Walnut street, 6-inch B. M. hydrant, set opposite Veazie street, and 6-inch B. M. hydrant removed from 30 feet south from Veazie street.

Broadway, 4-inch B. M. hydrant, removed from 11 feet west from Norwood avenue.

Heath street, 6-inch Chapman hydrant, removed from corner of Bond street.

Heath street, 6-inch Chapman hydrant, removed from 50 feet west from Temple street.

Holland street, 6-inch Coffin hydrant, removed from 89 feet north from Thorndike street.

Holland street, 6-inch Coffin hydrant, removed from 82 feet south from Elmwood street.

All hydrants have been thoroughly inspected and necessary repairs made. All have been painted and are now in excellent condition. Expense of maintenance and repairs of hydrants, for inspection, labor and materials used in repairs, teaming, painting, etc., has been \$689.33.

RECAPITULATION.

Number of public hydrants set in 1898	65
“ “ private “ “ “ “	0
Total number of hydrants set in 1898	65
Number of hydrants removed in 1898	23
Net increase in number of public hydrants, 1898 . .	42
“ “ “ “ private “ “	0
Total net increase in number of hydrants, 1898 . .	42
Total number of public hydrants in the city . .	822
“ “ “ private “ “ “ “	41
Total number of all hydrants in the city, January 1, 1899	863

LOCATION OF HYDRANTS.

Adams street, 11 feet south from Broadway.
Adams street, 221 feet south from Broadway.
Adams street, 266 feet north from Medford street.
Adams street, 10 feet north from Medford street.
Adrian street, 106 feet east from Marion street.
Adrian street, 220 feet south from Joseph street.
Allen street, 9 feet north from Charlestown street.
Albion street, 74 feet west from Centre street.
Albion street, 396 feet west from Central street.
Albion street, 217 feet east from Lowell street.
Albion street, 421 feet east from Cedar street.
Aldersey street, 276 feet west from Walnut street.
Alpine street, 280 feet east from Cedar street.
Alpine street, 76 feet west from Princeton street.
Alpine street, 298 feet west from Lowell street.
Allston street, 212 feet east from Cross street.
Allston street, 10 feet west from Shawmut place.
Ames street, 123 feet west from Central street.
Appleton street, 3 feet east from Clifton street.
Appleton street, 41 feet west from Willow avenue.
Arlington street, 36 feet east from Hathorn street.
Arthur street, 29 feet south from Broadway.
Ash avenue, 300 feet north from Meacham street.
Ashland street, 268 feet south from Summer street.
Auburn avenue, 239 feet west from Cross street.
Auburn avenue, 481 feet west from Cross street.
Austin street, 81 feet south from Mystic avenue.
Austin street, 66 feet north from Benedict street.
Austin street, 2 feet north from Broadway.
Avon street, 233 feet east from Central street.
Avon street, 572 feet west from School street.
Banks street, 310 feet south from Summer street.
Bartlett street, 230 feet south from Broadway.
Bartlett street, 15 feet south from Ames street.
Bartlett street, 10 feet south from Robinson street.
Beacon street, 316 feet west from Greenwood terrace.

Beacon street, 10 feet east from Stanford terrace.
Beacon street, 46 feet west from Sacramento street.
Beacon street, 15 feet west from Kent street.
Beacon street, 4 feet west from Ivaloo street.
Beacon street, 68 feet east from Park street.
Beacon street, 18 feet east from Durham street.
Beacon street, 26 feet east from Washington street.
Beacon street, 90 feet east from Calvin street.
Beacon street, 194 feet east from Calvin street.
Beacon street, 28 feet west from Buckingham street.
Beacon street, 208 feet east from Buckingham street.
Beacon street, 6 feet east from Concord avenue.
Beech street, 4 feet south from Atherton street.
Beech street, 31 feet east from Spring street.
Belmont street, 206 feet north from Spring Hill terrace.
Belmont street, 241 feet north from Summer street.
Belmont street, 243 feet south from Summer street.
Belmont street, 10 feet north from Belmont place.
Belmont street, 222 feet south from Belmont place.
Belmont street, 185 feet north from Somerville avenue.
Benedict street, 33 feet east from Mystic street.
Bennett street, 166 feet east from Prospect street.
Benton road, 2 feet north from Cambria street.
Benton road, 28 feet south from Highland avenue.
Berkeley street, 8 feet east from Central street.
Berkeley street, 150 feet east from Hersey street.
Berkeley street, 28 feet west from School street.
Berkeley street, 212 feet west from Hersey street.
Billingham street, 126 feet north from William street.
Bolton street, 203 feet north from Houghton street.
Bolton street, 3 feet south from Oak street.
Bonair street, 26 feet west from Cross street.
Bonair street, 90 feet east from Autumn street.
Bonair street, 121 feet east from Arthur street.
Bonair street, 67 feet east from Dana street.
Bonair street, opposite Melvin street.
Bonair street, 117 feet east from Walnut street.
Bond street, 63 feet south from Jaques street.

Bonner avenue, 171 feet north from Washington street.

Boston avenue, 110 feet south from bridge over Mystic river.

Boston avenue, 492 feet north from Gove street.

Boston street, 207 feet west from Bigelow street.

Boston street, 87 feet east from Bigelow street.

Boston street, 6 feet north from High street.

Bow street, 83 feet east from Walnut street.

Bow street, 23 feet west from Wesley park.

Bow street, 25 feet east from Bow street place.

Bowdoin street, 65 feet north from Fremont avenue.

Bradley street, 26 feet south from Veazie street.

Brastow avenue, 202 feet east from Porter street.

Brastow avenue, 115 feet west from Lowell street.

Broadway, 50 feet east from Mt. Pleasant street.

Broadway, 20 feet west from George street.

Broadway, 21 feet west from Broadway place.

Broadway, 83 feet east from Cutter street.

Broadway, 7 feet east from Glen street.

Broadway, 21 feet east from Rush street.

Broadway, 15 feet west from Cross street.

Broadway, 7 feet west from Autumn street.

Broadway, 6 feet west from Montgomery avenue.

Broadway, 33 feet west from Walnut street.

Broadway, 4 feet east from Sargent avenue.

Broadway, 3 feet west from Melvin street.

Broadway, 157 feet west from Grant street.

Broadway, 117 feet east from Marshall street.

Broadway, 62 feet west from Marshall street.

Broadway, 3 feet west from School street.

Broadway, corner Thurston street.

Broadway, 209 feet east from Central street.

Broadway, 104 feet west from Norwood avenue.

Broadway, 20 feet west from Farm lane.

Broadway, 288 feet east from Cedar street.

Broadway, opposite Cedar street.

Broadway, 171 feet west from Wilson avenue.

Broadway, 115 feet west from Rogers avenue.

Broadway, 236 feet west from Liberty avenue.
Broadway, 175 feet west from Elm street.
Broadway, 6 feet west from Billingham street.
Broadway, 9 feet west from Packard avenue.
Broadway, 32 feet east from Westminster street.
Broadway, 237 feet east from Endicott avenue.
Broadway, 6 feet west from Endicott avenue.
Broadway, 9 feet west from Garrison avenue.
Broadway, 138 feet west from Waterhouse street.
Broadway, 330 feet west from Waterhouse street.
Broadway park, near the pond.
Brook street, 18 feet west from Rush street.
Browning road, 302 feet west from Sycamore street.
Browning road, 136 feet east from Central street.
Buckingham street, 2 feet south from Dimick street.
Burnside avenue, 259 feet north from Elm street.
Burnside avenue, 120 feet south from Summer street.
Cameron avenue, 166 feet south from Holland street.
Cameron avenue, opposite Mead street.
Cameron avenue, 26 feet south from Glendale avenue.
Campbell park, 258 feet west from Meacham street.
Cedar street, 226 feet south from Sartwell avenue.
Cedar street, 98 feet north from Sartwell avenue.
Cedar street, 61 feet north from Hall street.
Cedar street, 12 feet north from Highland avenue.
Cedar street, 10 feet north from Albion street.
Cedar street, 124 feet south from Warwick street.
Cedar street, 50 feet north from Clyde street.
Cedar street, 24 feet south from Murdock street.
Cedar street, 270 feet south from Broadway.
Central street, 50 feet south from Broadway.
Central street, 6 feet north from Forster street.
Central street, 9 feet north from Vernon street.
Central street, 187 feet south from Vernon street.
Central street, 6 feet north from Albion street.
Central street, 1 foot south from Summer street.
Chandler street, 16 feet south from Broadway.
Chandler street, 206 feet north from Park avenue.

Charles street, 183 feet south from Washington street.
Charnwood road, 79 feet west from Gordon road.
Chauncey avenue, 8 feet north from Jaques street.
Cherry street, 7 feet south from Sartwell avenue.
Cherry street, 254 feet north from Sartwell avenue.
Cherry street, 252 feet north from Summer street.
Cherry street, 26 feet south from Highland avenue.
Chester street, 15 feet north from Chester place.
Chestnut street, 482 feet south from Poplar street.
Chestnut street, 246 feet south from Poplar street.
Church street, 9 feet south from Summer street.
Church street, 300 feet south from Summer street.
Church street, 29 feet north from Somerville avenue.
Church street, 16 feet south from Somerville avenue.
City stables, east end of yard.
Claremon street, 255 feet south from Holland street.
Clarendon avenue, 253 feet south from Broadway.
Clarendon avenue, opposite house No. 66.
Clark street, 200 feet west from Newton street.
Clark street, 416 feet west from Newton street.
Clyde street, 250 feet east from Cedar street.
Clyde street, opposite Murdock street.
Columbia street, 3 feet south from Beach avenue.
Columbia street, 8 feet south from Columbia court.
College avenue, 700 feet north from Broadway.
Columbus avenue, 150 feet east from Bonner avenue.
Columbus avenue, 118 feet west from Bonner avenue.
Columbus avenue, 35 feet west from Stone avenue.
Columbus avenue, 8 feet east from Walnut street.
Concord avenue, 154 feet west from Prospect street.
Concord avenue, 76 feet east from Concord square.
Concord avenue, on east line of Knapp school.
Concord avenue, 313 feet east from Springfield street.
Concord avenue, 24 feet east from Springfield street.
Concord avenue, 7 feet east from Marion street.
Concord avenue 6 feet south from Hammond street.
Concord avenue, 20 feet east from Wyatt street.
Conwell avenue, 460 feet west from Curtis street.

Conwell street, 6 feet south from Highland avenue.
Conwell street, 3 feet north from Francis street.
Cook street, 74 feet north from Wyatt street.
Cottage avenue, 206 feet west from Russell street.
Craigie street, 216 feet south from Summer street.
Craigie street, 232 feet north from Kimball street.
Craigie street, 77 feet south from Kimball street.
Craigie street, 126 feet north from Somerville avenue.
Crescent street, 80 feet south from Hadley place.
Crocker street, 4 feet south from Highland avenue.
Crocker street, north corner Crown street.
Cross street, north corner Otis street.
Cross street, 6 feet north from Pearl street.
Cross street, 32 feet north from Cross Street place.
Cross street, 62 feet north from Flint street.
Cross street, 16 feet north from Gilman street.
Cross street, 13 feet south from Auburn avenue.
Cross street, 39 feet north from Allston street.
Curtis street, 6 feet north from Broadway.
Curtis street, 3 feet south from Electric avenue.
Curtis street, 137 feet north from Ware street.
Curtis street, 3 feet south from Raymond avenue.
Curtis street, 34 feet south from Professors' row.
Curtis street, 183 feet north from Professors' row.
Cutter avenue, 11 feet south from Highland avenue.
Cutter square, 95 feet west from Cutter avenue.
Cutter street, 444 feet south from Broadway.
Dane avenue, 162 feet west from Leland street.
Dane avenue, 169 feet east from Dane street.
Dane street, 9 feet north from Tyler street.
Dane street, 260 feet south from Skehan street.
Dane street, 55 feet north from Skehan street.
Dartmouth street, 288 feet south from Broadway.
Dartmouth street, 53 feet south from Evergreen avenue.
Dartmouth street, 171 feet north from Medford street.
Day street, 10 feet south from Elm street.
Day street, 195 feet south from Herbert street.
Day street, 4 feet north from Orchard street.

Dell street, 255 feet west from Glen street.
Delaware street, 246 feet east from Aldrich street.
Derby street, 400 feet east from Temple street.
Dickinson street, 20 feet east from Beacon street.
Dover street, 203 feet south from Elm street.
Dover street, 312 feet north from Orchard street.
Dover street, 3 feet north from Orchard street.
Durham street, opposite Skehan street.
Durham street, 5 feet west from Hanson street.
Edmands street, 15 feet south from Broadway.
Ellsworth street, 7 feet west from Rush street.
Elm street, 59 feet west from Craigie street.
Elm street, 17 feet west from Porter street.
Elm street, 28 feet east from Linden avenue.
Elm street, 11 feet east from Mossland street.
Elm street, 9 feet west from Cedar street.
Elm street, 153 feet east from Cherry street.
Elm street, 110 feet west from Cherry street.
Elm street, 14 feet east from Burnside avenue.
Elm street, 104 feet east from Willow avenue.
Elm street, 20 feet east from St. James avenue.
Elm street, 9 feet west from Elston street.
Elm street, 90 feet west from Windom street.
Elm street, 25 feet west from Russell street.
Elm street, 11 feet west from Grove street.
Elm street, 82 feet west from Chester street.
Elm street, 12 feet north from Winter street.
Elm street, 6 feet south from Morrison street.
Elm street, 53 feet west from Francesca avenue.
Elm street, opposite Kenwood street.
Elm street, 100 feet west from Broadway.
Elmwood street, 9 feet south from Holland street.
Elmwood street, 300 feet north from Harrison street.
Eliot street, 3 feet east from Park street.
Endicott avenue, 422 feet south from Broadway.
Evergreen avenue, 8 feet east from School street.
Everett avenue, 5 feet west from Cross street.
Everett avenue, 9 feet east from Dana street.

Everett avenue, 449 feet west from Cross street.
Everett street, opposite Emerson street.
Fairlee street, 184 feet west from Cherry street.
Fairmount avenue, opposite Watson street.
Farragut avenue, 258 feet south from Broadway.
Farragut avenue, 537 feet south from Broadway.
Fenwick street, 40 feet north from Broadway.
Fiske avenue, 120 feet east from Hinckley street.
Fitchburg street, 395 feet east from Linwood street.
Flint street, 18 feet east from Flint avenue.
Flint street, 59 feet east from Cross street.
Flint street, 30 feet west from Franklin street.
Florence street, 206 feet south from Perkins street.
Florence street, 7 feet south from Pearl street.
Florence street, 453 feet north from Washington street.
Forster street, opposite Tennyson street.
Fosket street, 6 feet west from Bay State avenue.
Francesca avenue, 305 feet east from Elm street.
Francesca avenue, 7 feet west from Liberty avenue.
Franklin street, 14 feet north from Arlington street.
Franklin street, 76 feet south from Webster street.
Franklin street, 156 feet south from Pearl street.
Franklin street, 80 feet south from Oliver street.
Franklin street, 87 feet south from Palmer avenue.
Franklin street, 29 feet north from Washington street.
Fremont street, 82 feet north from Main street.
Fremont street, 343 feet north from Main street.
Fremont street, 287 feet north from Meacham street.
Fremont street, 25 feet north from E. Albion street.
Frost avenue, 75 feet east from Sherman street.
Fountain avenue, 280 feet west from Glen street.
Garden court, 357 feet south from Somerville avenue.
Garfield avenue, 24 feet south from Mystic avenue.
Garrison avenue, 235 feet south from Broadway.
Gibbens street, 202 feet west from Central street.
Gibbens street, 129 feet west from Benton avenue.
Gilman square, opposite Marshall street.
Gilman street, 103 feet east from Walnut street.

Gilman street, 143 feet east from Jasper street.
Gilman street, 8 feet west from Aldrich street.
Gilman street, 176 feet east from Aldrich street.
Gilman street, 295 feet west from Cross street.
Glen street, 147 feet south from Broadway.
Glen street, 8 feet north from Brook street.
Glen street, 6 feet north from Webster street.
Glen street, 1 foot north from Flint street.
Glen street, 11 feet north from Fountain avenue.
Gorham street, 310 feet south from Holland street.
Gorham street, 67 feet north from Howard street.
Grand View avenue, 286 feet east from Vinal avenue.
Grant street, 2 feet north from Derby street.
Greene street, 295 feet south from Summer street.
Greenville street, 148 feet north from Boston street.
Greenville street, 33 feet north from High street.
Hall avenue, 310 feet east from Elm street.
Hall avenue, 306 feet west from Liberty avenue.
Hall avenue, 9 feet west from Liberty avenue.
Hamlet street, 321 feet south from Highland avenue.
Hammond street, 30 feet west from Dickinson street.
Hancock street, 258 feet south from Summer street.
Hanson street, 12 feet south from Village street.
Hanson street, 9 feet south from Nevada avenue.
Hanson street, 6 feet south from Skehan street.
Harvard street, 13 feet north from Beech street.
Harvard street, 23 feet north from Harvard place.
Harrison street, 77 feet east from Kent street.
Harrison street (Ward 4), 4 feet east from Elmwood street.
Hawkins street, 50 feet north from Lake street.
Hawthorne street, 8 feet east from Cutter avenue.
Hawthorne street, 209 feet east from West street.
Heath street, 3 feet west from Temple street.
Heath street, 308 feet west from West street.
Heath street, 100 feet west from Bond street.
Heath street, 4 feet east from Fenwick street.
Heath street, 5 feet east from Moreland street.
Henderson street, 107 feet north from Wilton street.

Herbert street, 163 feet west from Chester street.
High street, 289 feet west from Boston street.
Highland avenue, 28 feet west from Hamlet street.
Highland avenue, 5 feet east from Walnut street.
Highland avenue, 262 feet west from Walnut street.
Highland avenue, 80 feet east from Vinal avenue.
Highland avenue, 41 feet west from Putnam street.
Highland avenue, 75 feet west from Prescott street.
Highland avenue, 114 feet west from School street.
Highland avenue, 410 feet west from School street.
Highland avenue, 112 feet west from Trull lane.
Highland avenue, 171 feet east from Central street.
Highland avenue, 214 feet east from Spring Hill terrace.
Highland avenue, 23 feet west from Spring Hill terrace.
Highland avenue, 20 feet west from Belmont street.
Highland avenue, 4 feet east from Tower street.
Highland avenue, 2 feet east from Porter street.
Highland avenue, 212 feet east from Cedar street.
Highland avenue, 35 feet east from Fanning avenue.
Highland avenue, 43 feet west from Lesley avenue.
Highland avenue, 3 feet west from Willow avenue.
Highland avenue, 6 feet west from Grove street.
Highland avenue, 218 feet west from Grove street.
Highland avenue, 64 feet east from Elm street.
Hinckley street, 106 feet south from Broadway.
Holland street, 39 feet west from Dover street.
Holland street, 8 feet west from B. & M. R. R. crossing.
Holland street, 5 feet east from Jay street.
Holland street, 3 feet east from Paulina street.
Holland street, 94 feet east from Claremon street.
Homer square, 200 feet west from Bonner avenue.
Houghton street, 82 feet west from Prospect street.
Houghton street, 3 feet west from Bolton street.
Houghton street, 10 feet west from Oak street.
Hudson street, 12 feet east from Waldo street.
Hudson street, opposite Benton avenue.
Hudson street, 294 feet east from Lowell street.
Hudson street, 362 feet west from Lowell street.

Hudson street, 675 feet west from Lowell street.
Ibbetson street, 256 feet north from Somerville avenue.
Ibbetson street, 6 feet south from Kimball street.
Irving street, 6 feet south from Broadway.
Irving street, 285 feet south from Broadway.
Irving street, 542 feet north from Holland street.
Irving street, 190 feet north from Holland street.
James street, 100 feet north from Pearl street.
Jaques street, 8 feet west from Grant street.
Jaques street, 360 feet east from Temple street.
Jaques street, 185 feet west from Temple street.
Jaques street, 410 feet east from Bond street.
Jasper street, 5 feet south from Virginia street.
Jay street, 82 feet north from Howard street.
Jenny Lind avenue, 224 feet south from Broadway.
Jenny Lind avenue, 16 feet north from Vernon street.
Jenny Lind avenue, 467 feet north from Vernon street.
Josephine avenue, 397 feet north from Morrison street.
Joy street, 34 feet south from Washington street.
Joy street, 502 feet south from Washington street.
Joy street, 271 feet north from Poplar street.
Kensington avenue, 6 feet north from Broadway.
Kent court, 205 feet west from Kent street.
Kidder avenue, 346 feet east from Elm street.
Kingman court, 282 feet south from Washington street.
Kingston street, 95 feet west from Thorndike street.
Knowlton street, opposite Morton street.
Lake street, 220 feet west from Hawkins street.
Lake street, 4 feet east from Carlton street.
Laurel street, 50 feet north from Greene street.
Laurel street, 8 feet north from Park place.
Lawrence street, 9 feet south from Richardson street.
Leland street, 14 feet south from Dane avenue.
Lexington avenue, 3 feet west from Fanning avenue.
Liberty avenue, 3 feet north from Kidder avenue.
Lincoln street, 174 feet north from Perkins street.
Lincoln avenue, 206 feet west from Mt. Vernon street.
Linden street, 31 feet north from Charlestown street.

Linden street, 237 feet south from Somerville avenue.
Linden avenue, 118 feet south from Gilson terrace.
Linden avenue, 255 feet south from Olive avenue.
Linden avenue, 30 feet north from Olive avenue.
Line street, 496 feet west from Cooney street.
Linwood street, 385 feet south from Washington street.
Linwood street, 48 feet south from Lamson court.
Linwood street, 52 feet south from London street.
Linwood street, 2 feet south from Linwood place.
London street, 383 feet east from Linwood street.
Loring street, 273 feet north from Somerville avenue.
Lowell street, 1 foot north from Fiske avenue.
Lowell street, 183 feet south from Richardson street.
Lowell street, opposite Vernon street.
Lowell street, 3 feet south from Princeton street.
Lowell street, 163 feet south from Highland avenue.
Lowell street, 53 feet north from Crown street.
Lowell street, 16 feet north from Kimball street.
Madison street, 467 feet west from School street.
Main street, 112 feet west from Mt. Vernon avenue.
Main street, west corner of Moreland street.
Mansfield street, 190 feet north from Somerville avenue.
Mansfield street, 189 feet south from Washington street.
Maple avenue, 294 feet east from School street.
Maple street, 7 feet south from Jackson street.
Maple street, 87 feet north from Poplar street.
Marshall street, 80 feet south from Stickney avenue.
Marshall street, 30 feet north from Stickney avenue.
Marshall street, opposite Howe street.
Marshall street, 5 feet north from Evergreen avenue.
Marshall street, 104 feet south from Mortimer place.
Marshall street, 109 feet north from Oakland avenue.
Malloy court, 16 feet south from Somerville avenue.
Meacham street, 4 feet north from Orchard street.
Meacham street, 97 feet north from Kingston street.
Meacham street, 200 feet north from Lester terrace.
Meacham street, 14 feet west from Moreland street.
Mead street, 48 feet east from Claremon street.

Medford street, 50 feet north from Hennessey court.
Medford street, 14 feet north from Jenny Lind avenue.
Medford street, 6 feet north from Central street.
Medford street, 18 feet south from Sycamore street.
Medford street, 46 feet south from Thurston street.
Medford street, north corner School street.
Medford street, 184 feet north from Marshall street.
Medford street, 17 feet south from Walnut street.
Medford street, 291 feet south from Walnut street.
Medford street, 8 feet south from Greenville street.
Medford street, 13 feet north from Prospect Hill avenue.
Medford street, 240 feet south from Prospect Hill avenue.
Medford street, opposite Chester avenue.
Medford street, 216 feet south from Washington street.
Medford street, 69 feet north from Jackson street.
Medford street, 21 feet north from Somerville avenue.
Medford street, 382 feet south from Somerville avenue.
Medford street, 220 feet north from Ward street.
Medford street, 55 feet north from Ward street.
Medford street, 91 feet south from Ward street.
Medford street, 46 feet south from South street.
Medford street, 17 feet south from Warren street.
Medford street, 220 feet south from Warren street.
Melrose street, 610 feet north from Mystic avenue.
Merriam street, 25 feet north from Charlestown street.
Miner street, 137 feet north from Vernon street.
Mondamin court, 272 feet west from Ivaloo street.
Montrose street, 10 feet east from Sycamore street.
Montrose street, 399 feet west from School street.
Moore street, 21 feet north from Mead street.
Moore street, 22 feet south from Holland street.
Moore street, 335 feet south from Holland street.
Moreland street, 345 feet north from Meacham street.
Moreland street, 2 feet south from East Albion street.
Morrison street, 13 feet west from Newberne street.
Morrison street, 183 feet west from Clifton street.
Morrison street, 33 feet west from Grove street.
Mossland street, 114 feet north from Somerville avenue.

Munroe street, 203 feet east from Walnut street.
Murdock street, 204 feet east from Cedar street.
Murdock street, 610 feet east from Cedar street.
Mt. Vernon avenue, 156 feet north from Heath street.
Mt. Vernon avenue, 38 feet south from Heath street.
Mt. Vernon street, 246 feet north from Washington street.
Mt. Vernon street, 8 feet north from Pearl street.
Mt. Vernon street, 7 feet south from Perkins street.
Mt. Vernon street, 5 feet south from Broadway.
Mt. Pleasant street, 253 feet south from Broadway.
Myrtle street, 460 feet north from Washington street.
Myrtle street, 74 feet south from Pearl street.
Mystic avenue, 90 feet east from Union street.
Mystic avenue, 3 feet west from Union street.
Mystic avenue, 438 feet east from Austin street.
Mystic avenue, 60 feet west from Temple street.
Mystic avenue, 800 feet east from Moreland street.
Mystic avenue, 544 feet east from Moreland street.
Mystic avenue, 241 feet east from Moreland street.
Mystic street, 160 feet south from Washington street.
Nashua street, 190 feet south from Wilton street.
Newbury street, 15 feet south from Holland street.
Newbury street, 260 feet south from Holland street.
Newbury street, 558 feet south from Holland street.
Newbury street, 777 feet south from Holland street.
Newbury street, 200 feet north from Cambridge line.
New Cross street, 114 feet north from Broadway.
Newton street, 9 feet west from Joseph street.
Newton street, 9 feet east from Clark street.
Norfolk street, 27 feet south from Webster avenue.
Norfolk street, 227 feet south from Webster avenue.
North street, 18 feet north from Broadway.
North street, 453 feet north from Raymond avenue.
North street, 190 feet north from city bound No. 17.
North Union street, 287 feet north from Mystic avenue.
Oak street, 8 feet west from Prospect street.
Oak street, 315 feet north from Houghton street.
Oakland avenue, 192 feet east from School street.

Oliver street, 191 feet east from Cross street.
Oliver street, 15 feet east from Glen street.
Oliver street, 7 feet west from Franklin street.
Orchard street, 8 feet west from Russell street.
Orchard street, west corner Milton street.
Orchard street, 9 feet east from Chester street.
Otis street, 440 feet west from Cross street.
Otis street, 9 feet east from Dana street.
Otis street, 6 feet east from Wigglesworth street.
Oxford street, 362 feet west from School street.
Oxford street, 100 feet west from Hersey street.
Park avenue, 83 feet west from Elm street.
Park avenue, 10 feet west from Chandler street.
Park street, 38 feet north from Fitchburg R. R.
Park street, 146 feet north from Beacon street.
Partridge avenue, 5 feet south from Broadway.
Partridge avenue, 26 feet north from Medford street.
Partridge avenue, 117 feet south from Medford street.
Partridge avenue, 421 feet south from Medford street.
Partridge avenue, 276 feet north from Vernon street.
Paulina street, 184 feet north from Holland street.
Paulina street, 288 feet south from Broadway.
Paulina street, 5 feet south from Broadway.
Pearl street, 50 feet west from Crescent street.
Pearl street, 7 feet north from Pinckney street.
Pearl street, 60 feet west from Hillside avenue.
Pearl street, 15 feet east from Delaware street.
Pearl street, 9 feet west from Glen street.
Pearl street, 30 feet west from Dana street.
Pearl street, 1 foot west from Wigglesworth street.
Pearl street, 6 feet west from Walnut street.
Pearl street, 110 feet east from Marshall street.
Perkins street, opposite Myrtle street.
Perkins street, 78 feet east from Florence street.
Perkins street, 24 feet east from Pinckney street.
Perkins street, 56 feet east from Perkins place.
Perkins street, 21 feet east from Mt. Pleasant street.
Pinckney street, 11 feet north from Washington street.

Pinckney street, 330 feet south from Pearl street.
Pinckney street, 203 feet north from Pearl street.
Pinckney street, 71 feet south from Pearl street.
Pleasant avenue, 256 feet west from Walnut street.
Prescott street, 330 feet south from Highland avenue.
Prescott street, 586 feet south from Highland avenue.
Prescott street, 257 feet north from Summer street.
Preston street, 350 feet west from School street.
Poplar street, 21 feet west from Joy street.
Porter street, 1 foot north from Mountain avenue.
Porter street, 282 feet south from Summer street.
Porter street, 24 feet north from Williams court.
Porter street, 8 feet north from Parker place.
Professors' row, 277 feet east from College avenue.
Professors' row, 126 feet west from College avenue.
Professors' row, 291 feet west from College avenue.
Professors' row, 548 feet east from Packard avenue.
Professors' row, 156 feet east from Packard avenue.
Professors' row, 286 feet west from Packard avenue.
Prospect Hill avenue, 10 feet north from High street.
Prospect street, 135 feet north from Bennett street.
Prospect street, 35 feet south from Concord avenue.
Prospect street, 185 feet south from Oak street.
Prospect street, 403 feet south from Oak street.
Prospect street, 63 feet north from Houghton street.
Putnam street, 116 feet south from Highland avenue.
Putnam street, 420 feet south from Highland avenue.
Putnam street, 612 feet north from Summer street.
Putnam street, 308 feet north from Summer street.
Quincy street, 340 feet south from Summer street.
Richardson street, 11 feet west from Nashua street.
Richdale avenue, opposite Thurston street.
Robinson street, 325 feet west from Central street.
Rogers avenue, 255 feet north from Morrison avenue.
Rossmore street, 244 feet south from Washington street.
Rush street, 84 feet south from Pearl street.
Rush street, 11 feet north from Pearl street.
Rush street, 128 feet north from Brook street.

Sacramento street, 5 feet south from Miller street.
Sanborn avenue, 55 feet east from Walnut street.
Sargent avenue, 474 feet south from Broadway.
Sargent avenue, 361 feet west from Walnut street.
Sargent avenue, 95 feet west from Walnut street.
School street, 100 feet south from Maple avenue.
School street, 6 feet south from Montrose street.
School street, 128 feet north from Highland avenue.
School street, 88 feet north from Oxford street.
School street, 15 feet north from Avon street.
School street, 100 feet south from Summer street.
School street, 93 feet south from Preston street.
School street, 61 feet north from Knapp street.
Sewall street, 311 feet west from Grant street.
Shawmut street, 9 feet west from Washington street.
Shawmut street, 153 feet west from Shawmut place.
Simpson avenue, 272 feet south from Broadway.
Skehan street, 110 feet east from Hanson street.
Somerville avenue, 188 feet west from Mossland street.
Somerville avenue, 308 feet east from Mossland street.
Somerville avenue, 600 feet east from Mossland street.
Somerville avenue, 116 feet west from Elm street.
Somerville avenue, 9 feet east from Ibbetson street.
Somerville avenue, 77 feet east from Belmont street.
Somerville avenue, 14 feet west from Garden court.
Somerville avenue, 133 feet west from Kent street.
Somerville avenue, 13 feet west from Beech street.
Somerville avenue, 11 feet east from Central street.
Somerville avenue, 15 feet west from Laurel street.
Somerville avenue, 86 feet west from Granite street.
Somerville avenue, 38 feet west from Sherman street.
Somerville avenue, 185 feet west from Hawkins street.
Somerville avenue, 88 feet west from Quincy street.
Somerville avenue, 105 feet east from Carlton street.
Somerville avenue, 90 feet west from Prospect street.
Somerville avenue, 28 feet west from Linden street.
Somerville avenue, 9 feet east from Mystic street.
Somerville avenue, 94 feet west from Mansfield street.

Somerville avenue, 126 feet east from Medford street.
Somerville avenue, 88 feet east from Poplar street.
Somerville avenue, 464 feet east from Poplar street.
Somerville avenue, 153 feet west from Linwood street.
Somerville avenue, 20 feet east from F. R. R. crossing.
Somerville avenue, 262 feet west from Franklin court.
Somerville avenue, 23 feet east from Franklin court.
Somerville avenue, 100 feet west from Cambridge line.
South street, 97 feet west from Bedford street.
South street, 2 feet east from Harding street.
South street, 25 feet west from Hunting street.
South street, 80 feet west from Willow place.
Spring street, 10 feet south from Pitman street.
Spring street, 184 feet north from Beech street.
Springfield street, 140 feet south from Concord avenue.
Springfield street, 21 feet south from Dickinson street.
Springfield street, 177 feet south from Houghton street.
Spring Hill terrace, 333 feet south from Highland avenue.
Stickney avenue, 212 feet west from Marshall street.
Stone avenue, 120 feet north from Union square.
Stone avenue, 275 feet south from Columbus avenue.
Summer street, 148 feet east from Cutter avenue.
Summer street, opposite Elston street.
Summer street, west corner Gordonia road.
Summer street, 34 feet east from Banks street.
Summer street, 6 feet east from Cherry street.
Summer street, 6 feet east from Cedar street.
Summer street, 24 feet east from Linden avenue.
Summer street, opposite Craigie street.
Summer street, 35 feet east from Porter street.
Summer street, 4 feet east from Lowell street.
Summer street, 3 feet east from Belmont street.
Summer street, 1 foot west from Spring street.
Summer street, 53 feet west from Harvard street.
Summer street, 215 feet east from Harvard street.
Summer street, 59 feet east from Central street.
Summer street, 19 feet west from Laurel street.
Summer street, 52 feet west from Preston street.

Summer street, 191 feet west from School street.
Summer street, 8 feet east from School street.
Summer street, opposite Putnam street.
Summer street, 6 feet west from Vinal avenue.
Summit avenue, 231 feet east from Vinal avenue.
Sunnyside avenue, 99 feet west from Wigglesworth street.
Sycamore street, 18 feet south from Broadway.
Sycamore street, 62 feet south from Browning road.
Sycamore street, 1 foot south from Forster street.
Sycamore street, 200 feet north from Medford street.
Sycamore street, 174 feet south from Medford street.
Sydney street, 418 feet east from Temple street.
Talbot avenue, 488 feet east from Packard avenue.
Temple street, 4 feet north from Broadway.
Temple street, 123 feet south from Sewall street.
Temple street, 11 feet north from Jaques street.
Temple street, 6 feet south from Derby street.
Temple street, 5 feet south from Sydney street.
Tenney court, 306 feet north from Mystic avenue.
Tennyson street, 4 feet south from Medford street.
Tennyson street, 117 feet north from Pembroke street.
Thorndike street, 4 feet south from Holland street.
Thorndike street, 82 feet north from Kingston street.
Thorpe place, 269 feet south from Highland avenue.
Thurston street, 187 feet north from Medford street.
Thurston street, 160 feet south from Evergreen avenue.
Thurston street, 6 feet north from Evergreen avenue.
Thurston street, 848 feet north from Evergreen avenue.
Tower street, 18 feet north from Crown street.
Tremont street, 9 feet south from Webster avenue.
Tremont street, 454 feet south from Webster avenue.
Trull street, 8 feet south from Medford street.
Trull street, 276 feet south from Medford street.
Trull street, 522 feet north from Vernon street.
Trull street, 270 feet north from Vernon street.
Tufts street, 51 feet north from Washington street.
Tufts street, 150 feet south from Glen street.
Tufts street, 43 feet north from Glen street.

Tufts street, 53 feet south from Dell street.
Tufts street, 45 feet south from Cross street.
Tyler street, 31 feet east from Vine street.
Union square, 267 feet east from Webster avenue.
Union square, 15 feet east from Stone avenue.
Union square, in the square, opposite Hill building.
Union square, centre of square.
Union street, 3 feet north from Broadway.
Union street, 123 feet south from Mystic avenue.
Veazie street, 1 foot west from James street.
Vernon street, 72 feet west from Partridge avenue.
Vernon street, 1 foot east from Bartlett street.
Vernon street, 2 feet east from Miner street.
Victoria street, 255 feet south from Broadway.
Vinal avenue, 10 feet north from Pleasant avenue.
Vinal avenue, 129 feet north from Aldersey street.
Vinal avenue, 206 feet north from Summer street.
Vinal avenue, 6 feet south from Highland avenue.
Vine street, 15 feet north from Beacon street.
Vine street, opposite Eliot street.
Virginia street, 45 feet west from Aldrich street.
Waldo street, 6 feet north from Highland avenue.
Wallace street, 37 feet south from Broadway.
Wallace street, 395 feet south from Broadway.
Wallace street, 483 feet north from Park avenue.
Wallace street, 166 feet north from Park avenue.
Wallace street, 10 feet north from Holland street.
Walnut street, opposite Veazie street.
Walnut street, 87 feet north from Gilman street.
Walnut street, 88 feet south from Wellington avenue.
Walnut street, 31 feet north from Pleasant avenue.
Walnut street, 12 feet south from Boston street.
Walter street, 28 feet west from Walnut street.
Walter street, 50 feet west from Bradley street.
Ward street, 104 feet west from Medford street.
Ward street, 3 feet east from Emery street.
Ware street, 258 feet west from Curtis street.
Warren avenue, 5 feet north from Sanborn avenue.

Warren avenue, 48 feet north from Bow street.
Warren avenue, 7 feet south from Columbus avenue.
Warwick street, 426 feet east from Cedar street.
Washington street, 69 feet west from Crescent street.
Washington street, west corner Mt. Vernon street.
Washington street, 6 feet west from Florence street.
Washington street, 15 feet west from Myrtle street.
Washington street, 18 feet east from Franklin avenue.
Washington street, 160 feet east from Franklin street.
Washington street, 50 feet east from Shawmut street.
Washington street, 37 feet east from Rossmore street.
Washington street, 78 feet east from Boston street.
Washington street, 28 feet west from Mystic street.
Washington street, 6 feet west from Clark place.
Washington street, 156 feet west from Bonner avenue.
Washington street, 6 feet east from Kingman court.
Washington street, 243 feet east from Parker street.
Washington street, 50 feet east from Bowdoin street.
Washington street, 9 feet east from Leland street.
Washington street, 175 feet west from Dane street.
Washington street, 45 feet east from Beacon street.
Water street, 91 feet north from South street.
Water street, 254 feet north from South street.
Water street, 354 feet north from South street.
Waterhouse street, 24 feet south from Broadway.
Waterhouse street, 326 feet south from Broadway.
Waterhouse street, 630 feet south from Broadway.
Webster avenue, 93 feet south from Washington street.
Webster avenue, 12 feet south from Everett street.
Webster avenue, 25 feet north from Newton street.
Webster avenue, 63 feet north from Prospect street.
Webster avenue, 18 feet south from Prospect street.
Webster avenue, 78 feet north from Tremont street.
Webster avenue, 3 feet north from Beach avenue.
Webster avenue, 1 foot south from Columbia court.
Webster street, 25 feet east from Cross street.
Webster street, 9 feet east from Rush street.
Webster street, 10 feet west from Cutter street.
Wellington avenue, 15 feet west from Montgomery avenue.

Wesley park, 245 feet north from Bow street.
 West street, 2 feet north from Broadway.
 West street (Ward 4), 3 feet north from Highland avenue.
 West street (Ward 4), 140 feet north from Highland avenue.
 Westminster street, 156 feet south from Electric avenue.
 Westwood road, 90 feet west from Central street.
 Westwood road, 58 feet east from Benton road.
 Wheatland street, 129 feet north from Broadway.
 Wheatland street, 9 feet south from Jaques street.
 Wheatland street, 78 feet south from Mystic avenue.
 Willow avenue, 14 feet north from Summer street.
 Willow avenue, 3 feet north from Lexington avenue.
 Willow avenue, 46 feet south from Morrison street.
 Willow avenue, 42 feet south from Fosket street.
 Wilton street, 6 feet east from Nashua street.
 Wilton street, 10 feet east from Lawrence street.
 Windom street, 7 feet south from Summer street.
 Windsor road, 86 feet east from Willow avenue.
 Winslow avenue, 145 feet east from Elm street.
 Winslow avenue, 5 feet west from Grove street.
 Winter street, 130 feet east from Holland street.
 Winter Hill circle, 178 feet north from Broadway.
 Winthrop avenue, 7 feet north from Broadway.
 Woodbine street, 222 feet west from Centre street.
 Wyatt street, 42 feet west from Cook street.
 Wyatt street, 324 feet east from Washington street.

PRIVATE HYDRANTS.

John P. Squire & Co.	7
North Packing and Provision Co.	11
Middlesex Bleachery	3
American Tube Works	2
Union Glass Works	1
Fitchburg Railroad	1
New England Dressed Meat and Wool Co.	6
Metropolitan Sewerage Pumping Station	1
Boston & Maine Railroad	8
Fresh Pond Ice Co.	1

GATES — CONSTRUCTION ACCOUNT.

New gates have been set in the following locations :—

- Ashland street, 6-inch gate, 10 feet out from east line, on north line of Sartwell avenue.
- Bedford street, 4-inch gate, 10 feet out from east line, on south line of house No. 3.
- Bowers avenue, 6-inch gate, 8 feet out from west line, on north line of Cottage avenue.
- Broadway, 12-inch gate, 36 feet out from south line and 25 feet east from west line of Temple street.
- Broadway, 12-inch gate, 36 feet out from south line and 14 feet east from west line of Temple street.
- Broadway, 12-inch check valve, 36 feet out from south line and 21 feet east from west line of Temple street.
- Broadway, 2-inch gate, 3 feet out from water-post between Willow avenue and Rogers avenue.
- Broadway park, 4-inch gate, 7 feet out from park fence line and 12 feet south from north line of house No. 56 Chauncey avenue.
- Chester avenue, 6-inch gate, 13 feet 4 inches out from south line, on west line of Cross street.
- Columbia street, 4-inch gate, 11 feet out from west line and 4 feet north from Cambridge line.
- Conwell street, 6-inch gate, 11 feet 8 inches out from east line, on south line of Highland avenue.
- Crescent street, 6-inch gate, 10 feet south from fence line and 12 feet south from south line of house No. 10.
- Cross street, 6-inch gate, 25 feet out from south line of Bedford street, on west line of Cross street.
- Cross street, 12-inch gate, 25 feet out from south line of Bedford street and 5 feet east from east line of Prospect Hill avenue.
- Cross street, 6-inch gate, 17 feet out from east line and 15 feet north from south line of Chester avenue.
- Curtis street, 12-inch gate, 13 feet 4 inches out from east line, on south line of Professors' row.
- Curtis street, 6-inch gate, 13 feet 4 inches out from east line and 26 feet 8 inches north from north line of Professors' row.

- Dane avenue, 8-inch gate, 10 feet out from south line, on west line of Leland street.
- Dane avenue, 6-inch gate, 13 feet out from south line and 6 feet west from east line of house No. 21.
- Durham street, 6-inch gate, 13 feet 4 inches out from north line, on west line of Hanson street.
- Electric avenue, 6-inch gate, 13 feet 4 inches out from north line, on east line of Curtis street.
- Fairlee street, 6-inch gate, 10 feet out from north line, on west line of Cherry street.
- Fairview terrace, 2-inch gate, 6 feet out from south line, on east line of Sycamore street.
- Florence terrace, 2-inch gate, 5 feet out from west line, on south line of Jaques street.
- Garrison avenue, 6-inch gate, 13 feet 4 inches out from west line, on south line of Broadway.
- George street, 6-inch gate, 10 feet out from east line, on north line of Lincoln avenue.
- Gordonia road, 6-inch gate, 13 feet 4 inches out from east line, on south line of Highland avenue.
- Greenwood terrace, 2-inch gate, 8 feet 6 inches out from east line, on north line of Beacon street.
- Hanson street, 6-inch gate, 11 feet 8 inches out from east line, on south line of Vine street.
- Harding street, 4-inch gate, 15 feet out from east line, on Cambridge line.
- Hathorn street, 6-inch gate, 13 feet out from east line, on north line of Arlington street.
- Highland avenue, 6-inch gate, 4 feet out from hydrant located 214 feet east from Spring Hill terrace.
- Holland street, 6-inch gate, 27 feet out from south line and 10 feet east from west line of Paulina street.
- Holland street, 12-inch check valve, 19 feet out from south line and 27 feet east from west line of Gorham street.
- Hunting street, 4-inch gate, 12 feet out from east line and 4 feet north from Cambridge line.
- Jaques street, 6-inch gate, 13 feet out from north line, on east line of Grant street.

- Jasper street**, 6-inch gate, 13 feet 4 inches out from west line, on south line of Pearl street.
- Kidder avenue**, 6-inch gate, 13 feet 4 inches out from north line, on west line of Liberty avenue.
- Leland street**, 8-inch gate, 13 feet 4 inches out from west line, on north line of Washington street.
- Linden circle**, 2-inch gate, 8 feet out from north line, on east line of Linden avenue.
- Medford street**, 6-inch gate, 19 feet out from west line and 34 feet south from B. & A. R. R. crossing.
- Mt. Vernon avenue**, 8-inch gate, 15 feet 6 inches out from east line and 15 feet 6 inches north from south line of Heath street.
- Murray street**, 2-inch gate, 10 feet out from west line and 8 feet south from south line of house No. 15.
- Norfolk street**, 4-inch gate, 12 feet out from south line and 3 feet east from Cambridge line.
- North street**, 12-inch gate, 13 feet 4 inches out from east line, on north line of Broadway.
- Oak street**, 4-inch gate, 10 feet out from south line, on east line of house No. 77.
- Packard avenue**, 12-inch gate, 17 feet out from east line and 52 feet north from south line of Professors' row.
- Pearl street**, 12-inch gate, 16 feet out from north line and 1 foot west from west line of Marshall street.
- Pearl street**, 8-inch gate, 16 feet out from north line and 15 feet east from west line of Marshall street.
- School street**, 2-inch gate, 3 feet out from water-post opposite Cummings school.
- Shawmut place**, 6-inch gate, 10 feet out from north line and 20 feet east from west line of Allston street.
- Temple street**, 6-inch gate, 21 feet out from west line and 16 feet north from north line of Heath street.
- Temple street**, 8-inch gate, 21 feet out from west line, on north line of Broadway.
- Temple street**, 12-inch gate, 22 feet east from west line and 50 feet out from north line of Broadway.
- Temple street**, 12-inch gate, 22 feet out from west line and 15 feet north from south line of Jaques street.

- Tremont street, 4-inch gate, 12 feet out from south line and 2 feet east from Cambridge line.
- Vine street, 6-inch gate, 8 feet out from hydrant and 15 feet east from east line of Beacon street.
- Virginia street, 6-inch gate, 13 feet 4 inches out from north line, on east line of Jasper street.
- Waldo street, 6-inch gate, 13 feet 4 inches out from west line, on north line of Highland avenue.
- Waldo street, 6-inch gate, 13 feet 4 inches out from west line and 19 feet south from north line of Highland avenue.
- Watson street, 6-inch gate, 13 feet 4 inches out from west line, on south line of Fairmount avenue.
- Watson street, 6-inch gate, 13 feet 4 inches out from west line, on north line of Broadway.
- Webster avenue, 6-inch gate, 19 feet out from east line and 5 feet north from south line of house No. 98.
- Willow place, 4-inch gate, 7 feet 6 inches out from east line and 4 feet north from Cambridge line.
- Wilson avenue, 4-inch gate, 6 feet out from west line, on south line of house No. 20.
- Windsor road, 6-inch gate, 13 feet 4 inches out from north line, on east line of Willow avenue.
- Windsor road, 6-inch gate, 13 feet 4 inches out from north line, on west line of Gordonia road.
- Winthrop avenue, 6-inch gate, 16 feet 4 inches out from east line, on north line of Broadway.

GATES — RENEWAL ACCOUNT.

The following changes have been made in the size and location of main gates :—

- Allston street, 6-inch gate, set 13 feet 4 inches out from south line, on east line of Cross street, and 4-inch gate removed from same location.
- Arlington street, 6-inch gate, set 13 feet 4 inches out from north line, on west line of Lincoln street, and 4-inch gate removed from same location.
- Arlington street, 6-inch gate, set 13 feet 4 inches out from north line, on east line of Franklin street, and 4-inch gate removed from same location.

- Belmont street, 8-inch gate, set 13 feet out from west line, on south line of Belmont place, and 4-inch gate removed from 15 feet out from west line, on south line of Belmont place.
- Broadway, 12-inch gate, set 14 feet out from south line and 16 feet west from west line of Victoria street, and 8-inch gate removed from 20 feet out from south line and 134 feet east from east line of Endicott avenue.
- Broadway, 12-inch gate, set 21 feet out from south line on east line of Newbury street, and 10-inch gate removed from Park in Teele square.
- Broadway, 12-inch gate, set 14 feet out from south line, on west line of Endicott avenue, and 10-inch gate removed from 21 feet out from south line, on west line of Packard avenue.
- Broadway, 12-inch gate, set 30 feet out from south line and 4 feet west from west line of Dexter street, and 8-inch gate removed from 40 feet out from south line, opposite Dexter street.
- Broadway place, 4-inch gate, set 8 feet 4 inches out from east line, and 194 feet south from south line of Broadway, and 8-inch gate removed from 12 feet out from east line and 192 feet south from south line of Broadway.
- Cameron avenue, 10-inch gate, set 20 feet 6 inches out from east line, on south line of Holland street, and 6-inch gate removed from same location.
- Chester avenue, 6-inch gate, set 8 feet 4 inches out from north line, on north line of Medford street, and 4-inch gate removed from same location.
- Clarendon avenue, 8-inch gate, set 13 feet out from west line, on south line of Broadway, and 6-inch gate removed from same location.
- Curtis street, 12-inch gate, set 13 feet 4 inches out from east line and 48 feet north from north line of house No. 54, and 6-inch gate removed from 13 feet 4 inches out from east line, opposite Raymond avenue.
- Curtis street, 12-inch gate, set 13 feet 4 inches out from east line, on north line of Broadway, and 6-inch gate removed from same location.

- Elmwood street, 8-inch gate, set 13 feet 4 inches out from west line, on south line of Holland street, and 4-inch gate removed from same location.
- Farm lane, 8-inch gate, set 11 feet out from east line, on south line of Broadway, and 6-inch gate removed from 11 feet out from east line and 20 feet north from south line of Broadway.
- Florence street, 6-inch gate, set 15 feet 6 inches out from west line, on north line of Pearl street, and 4-inch gate removed from same location.
- Hanson street, 6-inch gate, set 11 feet 8 inches out from east line, on north line of Skehan street, and 4-inch gate removed from same location.
- Hinckley street, 8-inch gate, set 9 feet 6 inches out from west line, on south line of Broadway, and 6-inch gate removed from same location.
- Holland street, 12-inch gate, set 18 feet 6 inches out from south line, on east line of Newbury street, and 10-inch gate removed from 20 feet out from south line, on west line of Newbury street.
- Holland street, 12-inch gate, set 19 feet out from south line and 21 feet east from west line of Gorham street, and 10-inch gate removed from 20 feet out from south line, on east line of Cameron avenue.
- Holland street, 12-inch gate, set 19 feet out from south line and 32 feet 6 inches east from west line of Gorham street, and 10-inch gate removed from 20 feet out from south line, on west line of Thorndike street.
- Holland street, 12-inch gate, set 19 feet out from north line, on east line of Irving street, and 10-inch gate removed from 20 feet out from south line, on east line of Thorndike street.
- Jaques street, 6-inch gate, set 13 feet 4 inches out from north line, on east line of Temple street, and 4-inch gate removed from same location.
- Lincoln avenue, 6-inch gate, set 10 feet out from south line, on west line of Mt. Vernon street, and 4-inch gate removed from 12 feet out from north line, on west line of Mt. Vernon street.

- Mt. Vernon street, 10-inch gate, set 15 feet out from east line, on south line of Perkins street, and 6-inch gate removed from same location.
- Mt. Vernon street, 10-inch gate, set 13 feet 4 inches out from west line, on south line of Pearl street, and 6-inch gate removed from same location.
- Myrtle street, 8-inch gate, set 14 feet out from east line, on north line of Pearl street, and 6-inch gate removed from 17 feet out from east line, on north line of Pearl street.
- Newbury street, 8-inch gate, set 13 feet out from east line, on south line of Holland street, and 6-inch gate removed from same location.
- Pearl street, 12-inch gate, set 16 feet 8 inches out from north line, on west line of Mt. Vernon street, and 8-inch gate removed from same location.
- Pearl street, 6-inch gate, set 13 feet 4 inches out from north line of New Pearl street, on east line of Mt. Vernon street, and 4-inch gate removed from same location.
- Shawmut street, 8-inch gate, set 13 feet 4 inches out from north line, on east line of Cross street, and 4-inch gate removed from 12 feet out from north line, on east line of Cross street.
- Shawmut street, 8-inch gate, set 13 feet 4 inches out from north line, on west line of Washington street, and 8-inch gate removed from 15 feet out from south line, on west line of Washington street.
- Shawmut place, 6-inch gate, set 9 feet 9 inches out from west line, on north line of Shawmut street, and 4-inch gate removed from same location.
- Temple street, 12-inch gate, set 22 feet out from west line, on north line of Broadway, and 8-inch gate removed from same location.
- Vine street, 8-inch gate, set 8 feet 4 inches out from east line, on north line of Beacon street, and 6-inch gate removed from 14 feet out from east line, on north line of Beacon street.
- Vine street, 8-inch gate, set 8 feet 4 inches out from east line and 12 feet south from west line of Hanson street, and

6-inch gate removed from 9 feet out from east line, on west line of Hanson street.

Broadway, 8-inch gate, removed from 34 feet out from south line, on east line of Marshall street.

Broadway, 8-inch gate, removed from 40 feet out from south line, on west line of Medford street.

Cost of maintenance of main gates and boxes, for labor, materials and teaming \$239.59

RECAPITULATION.

GATES	2"	3"	4"	6"	8"	10"	12"	Total
Set	7		11	45	16	3	23	105
Removed . .		1	13	12	7	6		39

Net increase in number of gates in 1898 66

Total number of gates in the city January 1, 1899 . . . 1,035

WATER-POSTS.

Two new water-posts for the use of the street-watering department were set in 1898, in the following locations : —

Broadway, near Willow avenue.

School street, opposite Cummings school.

One water-post was set on Wheatland street, near the corner of Mystic avenue, for the use of the Metropolitan Park Commission, and at their expense.

The total number now in the city is fifty-seven. One water-post was moved from Main street, near Broadway, to Bond street, near Broadway; one from Summer street, opposite Laurel street, to Laurel street, near Summer street; one from Highland avenue, at corner of Willow avenue, to Grove street, near Highland avenue; one from Highland avenue, opposite No. 241, to Highland avenue, opposite Crocker street; and one was moved from Broadway, corner of Melvin street, to Broadway Park, near Winthrop avenue. All have been painted, and are in good repair.

LOCATIONS OF WATER-POSTS.

Albion street, near Lowell street.
Appleton street, near Willow avenue.
Beacon street, opposite Cooney street.
Beacon street, near Vine street.
Beacon street, near Sacramento street.
Bond street, near Broadway.
Boston street, near Greenville street.
Broadway, near corner of Franklin street.
Broadway, near Winthrop avenue.
Broadway, opposite city farm.
Broadway, near Willow avenue.
Broadway, near Irving street.
Broadway, corner of Clarendon avenue.
Broadway, opposite North street.
Columbus avenue, near Stone avenue.
Concord avenue, corner of Marion street.
Elm street, near Burnside avenue.
Elm street, near Morrison street.
Elm street, opposite Kenwood street.
Flint street, near Cross street.
Gilman street, near Walnut street.
Grove street, near Highland avenue.
Highland avenue, corner of Medford street.
Highland avenue, corner of Central street.
Highland avenue, opposite Crocker street.
Holland street, near Elmwood street.
Jaques street, near Glines school.
Laurel street, near Summer street.
Linwood street, near Poplar street.
Medford street, corner of Lee street.
Medford street, near Jenny Lind avenue.
Montrose street, near School street.
Mystic avenue, corner of Union street.
Orchard street, near Meacham street.
Otis street, near Cross street.
Pearl street, near Delaware street.
Pearl street, near Myrtle street.

Putnam street, corner of Summer street.
 School street, near Broadway.
 School street, opposite Cummings School.
 Somerville avenue, near East Cambridge line.
 Somerville avenue, near Poplar street.
 Somerville avenue, corner of Mystic street.
 Somerville avenue, near School street.
 Somerville avenue, corner of Beacon street.
 Spring street, near Somerville avenue.
 Summer street, near Belmont street.
 Summer street, corner of Cedar street.
 Summer street, corner of Elm street.
 Tufts street, corner of Cross street.
 Vinal avenue, near Highland avenue.
 Washington street, corner of Myrtle street.
 Washington street, corner of Boston street.
 Washington street, near Union square.
 Washington street, opposite Leland street.
 Wheatland street, near Mystic avenue.
 Webster avenue, near glass house.

The following items of expense appear for the construction and maintenance of water-posts :—

Cost of setting two new water-posts, complete : —

Materials	\$47.79	
Labor and teaming	25.12	
		\$72.91

Maintenance of posts and turning off and on water : —

Materials	\$139.21	
Labor and teaming	219.47	
		358.68

Total cost			\$431.59
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METER TABLE.

SHOWING THE NUMBER OF METERS SET, THE PURPOSE FOR WHICH THEY ARE USED, AND THE INCOME RECEIVED.

PURPOSE.	Number.	Meters Set.	Meters Removed.	Amount Received.
Apartment Houses	5	6		\$ 527.12
Bacon Works	1	1		98.69
Bakeries	1	1	1	38.64
Bleachery and Dye Works	1	1		318.96
Car Houses	4	6		518.73
Churches	1	1		23.10
Coal Wharves	2	2		341.19
Distilleries	1	1		200.51
Electric Light Stations	1	1		1,515.84
Elevator Clocks	1	1		392.28
Factories	16	18		2,430.19
Fire Stations	1	1		116.20
Foundries	1	1		86.80
Glass Works	2	2		85.54
Grain Elevators	1	1		37.31
Hospitals	1	1		145.88
Hotels	3	3		280.94
Machine Shops	1	1		16.80
Motor Clocks	6	6		46.48
Offices and Stores	16	16		691.92
Photograph Studios	1	1		21.84
Pickle and Preserving Works	2	3		327.74
Poultry Farms	1	1		29.54
Printing Offices	1	1		73.49
Public Buildings	2	2		79.24
Pumping Stations	1	1		225.50
Railway Stations	3	3		188.91
Railway Yards	2	2		13,154.56
Schoolhouses	19	18		1,232.10
Slaughtering and Rendering Establishments	5	16		15,738.50
Soap Works	2	2		207.06
Stables	24	24	1	1,358.61
Steam Engines	4	4	3	193.80
Stock Yards	2	2		142.82
Vinegar Works	2	4		132.76
		155	5	\$41,067.61

Expenditure for labor, teaming and materials used in meter construction	\$8,015.49
Expense of maintenance and repairs of meters and changes in meter connections, for labor and materials, has been	161.23

MAINTENANCE OF STREET MAINS.

The following bursts and leaks on street mains occurred in 1898:—

BURSTS.

	SIZE OF MAIN.	NUMBER.
	3"	1
	4"	8
	6"	2
	8"	2
Total		13

LEAKS.

	SIZE OF MAIN.	NUMBER.
	4"	2
	6"	3
	12"	1
	16"	1
Total		7

Expenditures in 1898, on account of defective street mains, were:—

Pipe and fittings	\$101.15
Labor and teaming	342.10
	\$443.25

WATER SERVICES.

SERVICE CONSTRUCTION.

Two hundred and five new service connections were made in 1898, as follows:—

Owners' applications received in 1898	204
Transferred from City of Cambridge main in Somerville avenue	1
	205

The following table shows the sizes and lengths laid : —

	SIZE.	NUMBER.	LENGTH.
	2"	3	121 feet
	1"	8	229 "
	¾"	184	7,301 "
Total		205	7,651 feet

Total number of service pipes laid to January 1, 1899, 9,806.

Total length of service pipe used in making service connections, 61 miles, 8,536 feet.

SERVICE MAINTENANCE.

The following items of expense appear in the maintenance and repairs of service pipes : —

Leaks repaired on service pipes	163
Iron service boxes set	129
New service gates set on old connections	44
Services cleaned of sediment, fish, etc.	107
Services replaced at city's expense on account of defective pipe and fittings	7
Total expenditure for labor and fittings on service maintenance account	\$2,085.36

HIGH SERVICE.

COST OF OPERATION AND MAINTENANCE.

Engineer's salary	\$1,100.00
Firemen's wages	850.75
Fuel for boiler	1,554.14
Telephone rental and tolls	82.69
Electric lighting	49.21
Supplies and repairs to pump and boilers	215.70
	\$3,852.49

Total number of gallons of water pumped in 1898, 287,760,000.

Cost of pumping per 1,000 gallons, based on the expense of operating the high-service system, \$0.01343.

TROL OF
1898.

\$700,000.00

17,000.00

32,000.00

10,000.00

12.85

16.70

902.25

1,341.55

200.00

2,565.23

500.00

760.00

235.00

15.50

120.18

13,200.00

3,384.17

960.60

8.00

1,423.21

749.75

\$785,394.99

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and repairs

Leaks :

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Service

Service

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Engineer's :

Firemen's w

Fuel for boi

Telephone r

Electric ligh

Supplies an

Total n
287,760,000

Cost of :
operating th

TION OF PROPERTY UNDER CONTROL OF E WATER BOARD, DECEMBER 31, 1898.

2,442 feet of iron and cement dis- tension mains	}	\$700,000.00
es and boxes set in connection with		
hydrants set in connection therewith		
posts set in connection therewith		
meters set in connection therewith		
rice standpipe and grounds		17,000.00
ent building and grounds		32,000.00
rice pumps and boilers		10,000.00
high-service boilers		12.85
l boiler sundries		16.70
ent building furniture		902.25
niture		1,341.55
ationery, etc.		200.00
.		2,565.23
.		500.00
sleighs, etc.		760.00
s, robes, etc., ...		235.00
grain		15.50
quipment		120.18
.		13,200.00
istings and fittings		3,384.17
l boxes		960.60
.		8.00
ipe and fittings		1,423.21
nd fittings		749.75
		\$785,394.99

board is also in control of 61 miles, 3,536 feet of service
h 9,806 connections, the cost of which has been paid
y by the owners of properties connected to the water

REPORT OF THE ENGINEER OF THE PUMPING STATION.

HIGH SERVICE PUMPING STATION,
SOMERVILLE, Dec. 31, 1898.

TO THE BOARD OF WATER COMMISSIONERS.

Gentlemen:—The following table shows the work done at the high service pumping station for the year ending December 31, 1898.

Date, 1898.	No. of Days.	No. of Runs.	Pumping Time in Hours.	Gallons of Water Pumped.	Pounds of Coal Burned.	Pounds of Ashes and Clinkers.
January	31	62	227.30	21,984,000	69,100	8,700
February	28	57	426.00	24,552,000	83,440	10,186
March	31	62	256.00	22,056,000	67,350	7,025
April	30	61	226.00	21,480,000	62,625	8,175
May	31	62	227.30	21,336,000	62,075	9,075
June	30	60	249.00	25,632,000	72,350	8,650
July	31	62	250.45	25,872,000	71,725	9,175
August	31	63	228.30	23,088,000	68,495	9,015
September	30	60	249.30	25,128,000	62,825	11,275
October	31	62	234.15	24,312,000	68,625	10,625
November	30	60	281.30	24,000,000	72,650	9,825
December	31	64	349.30	28,320,000	93,625	12,075
Total . .	365	735	3,186.00	287,760,000	854,885	113,810

No general repairs have been necessary. The air pump has been overhauled and the vacuum improved. The boilers have been thoroughly cleaned and inspected; new fire-brick linings have been laid, and the entire apparatus is in good condition.

SIDNEY E. HAYDEN,

Engineer.

G. 14. 150

26th Annual Report

of the

★ **Water Department**

of the

City of Somerville

Massachusetts

1899



VILA 7-1



TWENTY-SIXTH
ANNUAL REPORT

OF THE

Board of Water Commissioners

OF THE

CITY OF SOMERVILLE

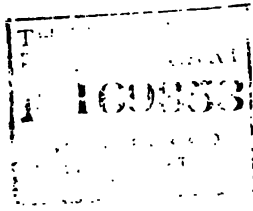
MASSACHUSETTS

FOR THE YEAR 1899



SOMERVILLE JOURNAL PRINT

1900



WATER DEPARTMENT.

Board of Water Commissioners, 1899.

GEORGE D. WEMYSS, President.

WILLIAM FRANKLIN HALL,	345 Broadway.
GEORGE D. WEMYSS,	29 Ames street.
GEORGE A. KIMBALL,	33 Warren avenue.

Superintendent of the Water Works and Clerk of the Board.

FRANK E. MERRILL.

Office of the Water Department.

Room 10, City Hall.

Engineer at Pumping Station.

SIDNEY E. HAYDEN.

Pumping Station, Storehouse, Repair Shop and Stable.

Cedar street, near Broadway.

Bills against the department should be rendered to the Superintendent on or before the first day of each month, and are payable by the City Treasurer on the seventeenth of the month.

REPORT OF THE WATER COMMISSIONERS.

OFFICE OF THE BOARD OF WATER COMMISSIONERS, }
January 10, 1900. }

To His Honor the Mayor and the City Council:—

The Board of Water Commissioners present herewith, for your consideration, the twenty-sixth annual report of this department, covering the operations of the year ending December 31, 1899.

The Board organized on the tenth day of February by the re-election of George D. Wemyss as president and Frank E. Merrill as clerk of the Board and superintendent.

The year has been a prosperous one. The work of the department has become so well systematized that everything goes on in an orderly manner and to the satisfaction of those of our citizens who have had occasion to visit the office or works on business connected with the department. It is a great satisfaction to be able to make so creditable a statement as this, and to do so with confidence, when this department has such intimate relations with all who reside in our city. The facts, however, are such as to warrant it, and the credit is largely due to the able and courteous manner in which the affairs of the department are administered by the superintendent and those whom he has to assist him in carrying on the work.

The new building referred to in the report last year has proved itself to be well adapted to the requirements of the department. During the past year improvements have been added in the way of conveniences for doing many kinds of work, for which no facilities existed before.

The meter-testing plant has served a good purpose during the past year. In some cases, where it had been thought by water takers that the meters were at fault, the matter has been adjusted by having meters tested in their presence, and in all cases the meters have been found to register correctly, and the parties were satisfied.

The repair shop has been equipped with new devices for better doing the work required, and the new features introduced are such as will result in greater utility and economy in connection with the affairs of the department.

High Service.

As was intimated in last year's report, our pumping plant has been an important feature to the Metropolitan Water Works, for

it has been run during the year entirely under the direction of the Metropolitan Water Works, with no expense whatever to the city of Somerville.

It is very gratifying to be able to say that the pump has proved itself equal to the occasion, and has done even more than could reasonably be expected of it. It has been run almost continuously day and night, supplying not only our own high service district, but pumping, also, into the Metropolitan reservoir in Middlesex Fells, which furnishes the high service for all the northern district of the Metropolitan Water Works.

The fact that the standpipe had been found in such condition that a considerable outlay would be required to make it serviceable suggested the plan of abandoning it if this could be done without detriment to the high water service. It did not seem to the Board to be a wise policy to spend a large sum of money in restoring the standpipe to a proper condition for use, in view of the expected high-water service from the large reservoir in the Fells, which would render the standpipe of no use except in case of emergency, and in such a case its capacity would be limited to the amount of water it contained, whereas the demand might far exceed this. Therefore, the standpipe and the grounds adjacent thereto have been surrendered by this department, and have been placed by the City Council in charge of the committee on public grounds.

The pumping station at Spot pond is now nearly completed, and is expected to be ready by February to commence pumping into the Fells reservoir. When it gets into operation our pump will be no longer needed, and may be disposed of when a favorable opportunity appears. It is, however, desired by the Metropolitan Water Board that some means should be provided to guard against a possible interruption from any cause of the supply from the Fells reservoir; therefore, the Board have given the subject considerable attention, with a view of making some recommendation as to the best way of accomplishing this. There will be only one line of pipe from the reservoir in the Fells to furnish the water for the entire high service of the northern district, and, should anything happen to this line of pipe, we should be without water in our high-service pipes, unless we are provided with an emergency pump of some sort which can be started up on short notice to supply the deficiency.

It has been difficult to fix upon any definite plan, however, although some progress has been made, but the final solution of the problem must be left to those who will have charge of the works after the present Board ceases to exist. It should receive early attention, in order that the necessary means may be provided, and the pump now in use disposed of when the new pumping station in the Fells starts up. The present steam pump would be undesirable as an emergency pump from the fact that it would be necessary to keep up steam all the time, night and

day, in order to be prepared to start up, should occasion require its use.

Water Supply.

All that has been said in former reports relative to the Metropolitan supply has been fully realized. The water is giving satisfaction to our citizens, and, in view of the unusually dry weather during the fall, there is reason for congratulation that we were not dependent upon the Mystic water supply, as formerly.

Renewals, Extensions, etc.

The work of the past year has been productive of even greater results than the year 1898, although the latter year was considered to be very important as regarded the amount of work accomplished.

The department work for the year 1899 embraces the following:—

Pipe laid of various sizes in extension of the works .	16,981 feet
Cast-iron pipe laid in replacing old cement mains .	20,405 "
New hydrants set, making now 911 in the city . . .	48
Additional gates put in	99
Additional check valves put in	3
New service connections made	247

This shows an extension of the works equal to two and one-quarter miles. As to the old cement-lined pipe, it has been gradually replaced from year to year, until now only about six miles remain in our streets. One more year should see the end of these objectionable pipes, which have been so troublesome in former years.

Water Revenue.

Bills have been placed in the hands of the City Treasurer for collection as follows:—

Annual water charges	\$158,990 00
Additional water charges	15,145 32
Metered water charges	45,849 76

\$219,985 08

Abatements on above	4,542 05
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\$215,443 03

Leaving net amount of bills	\$215,443 03
To this may be added an amount received from the Metropolitan Water Board, being the proportion due us for revenue received from the admission into the Metropolitan water system of the city of Quincy and the towns of Arlington and Nahant, and from the sale of water to other parties; this, in effect, being a reduction of the amount due from the city of Somerville to the Metropolitan Water Board for the year 1899 . . .	2,577 19

Making total revenue	\$218,020 22
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The Water Department was granted by the City Council appropriations as follows:—

For Water Maintenance	\$50,000 00	
For Water Works Extension	20,000 00	
		\$70,000 00
The interest on Water Bonds for the year has been	10,882 50	
Water Loan Bonds have been paid during the year amounting to	32,500 00	
Assessment Metropolitan Water Works	20,975 58	
Refunds made on water charges from appropriation for Abatements (\$6,000)	119 18	
Total amount of money expended for the Water Department		\$134,477 26
Profit to the city		\$83,542 96
The amount of bills uncollected for water charges of 1899 is	\$12,203 69	
The amount collected by the City Treasurer in 1899 on account of uncollected bills for water charges of 1898 is	11,041 49	
Deduct this difference in order to arrive at the actual amount of water revenue available in 1899		1,162 20
		\$82,380 76
This was used as follows:—		
Sewer Bonds	\$8,000 00	
Interest on Sewer Bonds	6,700 00	
Maintenance of sewers	8,500 00	
Sewers construction, appropriation	\$19,722 75	
Sewers construction, balance of appropriation for Abatements on water charges (\$6,000)	5,880 82	
		25,603 57
Appropriated for Metropolitan Sewer Assessment, but not used	\$31,000 00	
Amount received from Metropolitan Water Board, as noted above, and not used	2,577 19	
		33,577 19
		\$82,380 76

It is rather remarkable that the profit from this department practically agrees with the amount estimated in our report of last year, viz., \$83,000.

This estimate was made in connection with an exhibit showing that a reduction of the water charges to our citizens of ten per cent. could be made without any difficulty; this, however, not meeting with the approval of the Mayor, could not be effected. In this connection it may not be amiss to state that our sister cities Chelsea and Everett, whose rates were uniform with ours, have made material reductions in their rates, the former twenty-five per cent. and the latter ten per cent.

The profits from this department will probably not be any less than they are for the year just closed, and the feeling is that they will be even more than in the year 1899, if the same rates of charges are adhered to, for the expenses will not increase, but are likely to decrease, as the works are put into better shape by the substitution of cast-iron pipe for the cement-lined pipe, and by the improved methods of carrying on the work of the department, aided materially by the conveniences which the new building provides.

The future policy of the city may be either to give our citizens the benefit of this profit by a reduction of water charges, or by expending the money in the same way that taxes are expended, for the general good of the city. But it would seem to the Board that the first course would be the better one, and would give the citizens the most satisfaction, and they therefore commend this to the consideration of those who shall be in authority the coming year.

Statements as to the financial condition of the department are now submitted, together with the report of the superintendent of the works, to which your attention is requested.

GEORGE D. WEMYSS,
GEORGE A. KIMBALL,
WILLIAM FRANKLIN HALL,

Board of Water Commissioners.

FINANCES.

Cost of Water Works.

The total cost of the water works on December 31, 1898,	
was	\$721,578 98
Expended during the year 1899 on construction account . .	19,978 59
Total cost December 31, 1899	<u>\$741,557 57</u>

Water Debt.

The indebtedness of the city on account of the water works on December 31, 1898, was \$272,000; this debt has been reduced during 1899 by the payments of bonds, maturing July 1 and October 1, to the amount of \$32,500; the indebtedness being now represented by bonds drawing interest as follows:—

\$217,000.00 at 4 per cent. per annum.
12,500.00 at 5 per cent. per annum.
10,000.00 at 5½ per cent. per annum.

Total . . \$239,500.00

The following table, exhibiting the financial condition of the department from its first movements, is presented for reference and comparison:—

YEAR.	Water Loan Bonds Issued on Funded Debt Account.	Reduction of Funded Debt by Payments of Water Loan Bonds.	Expenditures for Construction of Water Works.	*Revenue from Water Works.
1869	\$80,000 00		\$92,203 27	\$911 39
1870	60,000 00		68,546 50	1,907 63
1871	60,000 00		43,648 66	3,151 30
1872	90,000 00	\$50,000 00	43,288 33	3,719 91
1873	60,000 00	20,000 00	27,691 26	5,084 97
1874	15,000 00		34,294 06	6,818 20
1875	20,000 00		13,375 76	9,652 37
1876	70,000 00	60,000 00	6,409 49	10,268 06
1877	10,000 00		13,845 74	10,735 90
1878	30,000 00	30,000 00	514 13	11,584 89
1879			791 56	12,341 60
1880	60,000 00	60,000 00		12,999 79
1881	40,000 00	40,000 00		14,697 37
1882	90,000 00	90,000 00		19,354 28
1883	7,500 00	7,500 00		19,661 67
1884	20,000 00	20,000 00		20,085 95
1885	20,000 00	20,000 00		21,542 28
1886	55,500 00	55,500 00		21,444 91
1887	9,000 00	9,000 00		42,650 57
1888	25,000 00	96,500 00	19,338 89	50,419 07
1889	90,000 00	19,000 00	81,117 43	51,470 91
1890	55,000 00	13,000 00	53,411 79	55,879 72
1891	10,000 00	†11,000 00	40,708 48	60,150 80
1892	28,000 00	28,000 00	34,863 17	77,640 91
1893		17,000 00	35,545 30	78,459 73
1894		18,000 00	28,375 67	83,401 30
1895		19,000 00	32,007 44	89,431 46
1896	†12,000 00	18,500 00	16,631 83	95,719 69
1897		21,000 00	10,000 00	99,688 57
1898		22,000 00	26,970 22	200,735 03
1899		32,500 00	19,978 59	214,280 83
	\$1,017,000 00	\$777,500 00	\$741,557 57	\$1,405,891 06

Total issue \$1,017,000 00

Total payments 777,500 00

Present water debt \$239,500 00

* From 1869 to 1886, inclusive, the basis of Somerville's water revenue was as follows: — The entire revenue from sale of water in Somerville was collected by the city of Boston and payments were made to this city on the following sliding scale: —

On annual receipts up to \$20,000.00, Somerville's proportion was 15 per cent.

On annual receipts \$20,000.00 to \$30,000.00, Somerville's proportion was 20 per cent.

" " \$30,000.00 to \$40,000.00, " " " 25 "

" " \$40,000.00 to \$50,000.00, " " " 30 "

" " exceeding \$50,000.00, Somerville's proportion was 40 per cent.

In 1887 the contract was changed so that Somerville should receive 50 per cent. of the revenue, and this contract existed until January 1, 1898, on which date it was annulled, the revenue since that time being collected by the city of Somerville.

† In 1891 \$5,000.00 of Water Loan Bonds were cancelled, City Loan Bonds being substituted for them.

‡ Renewal.

REPORT OF SUPERINTENDENT OF THE WATER WORKS.

OFFICE OF SUPERINTENDENT OF THE WATER WORKS, }
January 2, 1900. }

To the Board of Water Commissioners:—

The customary annual statement of the work performed by the Water Department is herewith respectfully submitted for the year 1899.

The following table shows the

Receipts and Disbursements for the Year 1899.**WATER MAINTENANCE ACCOUNT.**

	Dr.	Cr.
Amount appropriated by City Council from water revenue		\$50,000 00
Collections from sundry accounts for labor and materials		16,765 96
Collections from other sources		46 00
Balance from water service assessments		114 48
Materials furnished service department	\$2,199 92	
Materials furnished construction department	6,541 50	
Labor and materials furnished sundry persons	8,294 52	
Labor and materials used in maintenance of the water works	49,740 88	
Balance to credit of water debt	149 62	
	<u>\$66,926 44</u>	<u>\$66,926 44</u>

WATER WORKS EXTENSION ACCOUNT.

	Dr.	Cr.
Amount appropriated by City Council from water revenue		\$20,000 00
Labor and materials used in extension of the water works	\$19,978 59	
Balance to credit of water debt	21 41	
	<u>\$20,000 00</u>	<u>\$20,000 00</u>

WATER SERVICE ACCOUNT.

	Dr.	Cr.
245 water service assessments		\$4,293 15
Collections for extra labor and material on above services		2 80
Labor and materials used in water service construction	\$4,181 47	
Balance transferred to water maintenance account	114 48	
	<u>\$4,295 95</u>	<u>\$4,295 95</u>

Accounting Department.

During the year there have been issued 9,930 "annual" water bills, 1,535 "additional" bills, and 764 "meter" bills. Herewith is given a summary of the work of the income department to December 31, 1899:—

Total amount of all water bills rendered consumers in 1899 account	\$219,985 08
Total amount abated consumers in 1899 account	4,542 05
Apparent earnings of Water Department, 1899	\$215,443 03
Total amount collected by City Treasurer, December 31, 1899, on 1899 account	203,239 34
Uncollected water bills December 31, 1899	\$12,203 69
Uncollected bills are apportioned as follows:—	
Metered water charges due January 1, 1900	\$12,157 69
Annual water charges	46 00
	\$12,203 69
Total amount of all bills uncollected January 1, 1899	11,739 01
Total abatements on above bills made in 1899	697 52
Total amount collected by City Treasurer in 1899 on above bills	11,041 49
Abatements were apportioned as follows:—	
Water used for fire purposes	\$687 52
Premises condemned	10 00
	\$697 52

Inspection Department.

The routine work laid out for this department in 1898 has been followed this year, and all premises in the city not supplied by meter have been carefully inspected. Four hundred and sixty-two defective fixtures have been discovered, divided as follows:—

Tanks and water closets	325
Faucets	109
Pipes	28

It has been the continued policy of the department to maintain a close watch for all waste of water, and to require defective pipes and fixtures to be properly repaired. Three hundred and ninety-six "waste notices" were sent out, and forty premises required a second notification before the waste was stopped.

Renewal of Street Mains.

This department of the work has been vigorously prosecuted during the year; 20,405 feet of the old cement-lined mains have been relaid with cast-iron pipe, leaving about 28,000 feet still in our streets. But few breaks have occurred during the year, as the old pipes were early removed from those streets where their weakness was suspected.

The 12-inch cement-lined pipe in Central street, which was laid in 1868, is still in service, but, judging from the condition of other pipes which have been removed, it is fair to assume that it has about reached its limit of safety, and should soon be replaced with iron pipe. The 12-inch cement pipe in Medford street, which was laid in the same year, was found to be in a condition which justified its removal this season, and it was accordingly replaced with an iron pipe of the same size.

A considerable portion of this old pipe seemed to be in very fair condition, but other sections were extremely weak, and liable to burst under a slight water hammer or increased pressure.

There have been thirteen bursts and ten joint leaks during the year. The cost of repairing the defective street mains has been :—

Pipe and fittings	\$69 73
Labor and teaming	291 91
Total	\$361 64

Extension of Street Mains.

During the year there have been laid 12,304 feet of pipe of various sizes to furnish water to houses constructed on new streets or elsewhere beyond our pipes, and to furnish additional supplies to certain districts, and, whenever practicable, connection has been made with some other main to secure circulation of the water. In addition to this, 4,677 feet of pipe have been laid for circulation purposes, and the result of all has been the removal of forty-six dead ends from the water system, which, it is safe to say, will greatly improve the quality of the water in the districts where they formerly existed. There is still opportunity for further action in this direction, and the work should be continued until no dead ends are left that it is reasonably possible to remove.

The total pipe mileage of the city is now approximately eighty-one miles, 3,583 feet.

High Service.

The high-service pipe in Summer street has been extended through Bow street to a connection with the old low-service main running through Union square and Washington street, giving high pressure as far as Bonner avenue, where a 10-inch check valve has been set between the high and low service systems. Five fire hydrants in Union square and its immediate vicinity have been connected to this pipe, and the pressure in this district for fire purposes is now about 103 pounds per square inch.

A 12-inch high-service pipe has been laid in Medford street, from a connection with the 14-inch pipe in Central street, as far as School street. It is intended to extend this pipe through Gilman square to connect with the main now laid beyond the

Boston & Maine railroad bridge, thus furnishing a high-water pressure for fire service in this section of the city which will reach nearly 100 pounds per square inch.

Some means should also be taken to furnish a high-pressure fire service to Davis square and vicinity; in the accomplishment of this it may be thought advisable to lay a high-service pipe from Cedar street, through Highland avenue and Holland street, to connect with the western high-service district at Gorham street, as Clarendon hill has not, at present, any connection with the general high-service system of the city, but is supplied from an independent connection with the Metropolitan Water Works pipe in Boston avenue, near Professors' row.

Pumping Plant.

Our high-service pumping plant has been run continuously during the year under arrangement made with the Metropolitan Water Board, whereby our plant has been made an important factor in the operation of the Metropolitan northern high-service district. This arrangement is to continue until the large pumping station and engines of the Metropolitan Water Works at Spot pond are completed, when it is expected that our plant will cease operation. Since January 1, 1899, our pump has worked in connection with those in neighboring cities to furnish high pressure to the entire northern high-service district, comprising Somerville, Medford, Malden, Melrose, Everett, Chelsea, Winthrop, Nahant, and Swampscott.

The pumping plant has been operated by our own department, under the general direction of the Metropolitan Water Board, and all the expenses have been paid by the Commonwealth.

In the course of the pumping operations, the new high-service reservoir of 38,000,000 gallons capacity, situated in the Middlesex Fells, has been filled. The engine has, during the year, pumped 720,960,000 gallons of water, against an average net head of 127 feet, and in one day, October 28, it raised 2,800,000 gallons, although its nominal capacity is but 2,000,000 gallons in twenty-four hours.

The quantity of water pumped and the conditions under which it has been used are so different from previous years that the customary chart would have little value, and therefore none is given this year.

The standpipe on Spring hill has been abandoned for water purposes. Connection with the force main in Belmont street was cut off on October 24, and on that date it was, by order of the City Council, delivered to the care and custody of that body, together with the land on which the structure stands.

Since the completion of the reservoir in the Middlesex Fells, our pressure has been generally increased throughout the high-service district about eighteen pounds per square inch.

General Construction.

A 20-inch water main has been laid in Broadway, between Willow avenue and a point near Elm street, to carry the water from our 20-inch connection with the Metropolitan main at Willow avenue to the West Somerville district. East of Willow avenue the 12-inch pipe in Broadway has been carried over the Boston & Maine railroad bridge and laid to Cedar street, connecting with the 12-inch and into the 30-inch main at that point.

A 12-inch low-service main has been laid in Medford street, from Magoun square to School street; a portion of this work was rendered necessary by the construction of the wire conduit of the New England Telephone and Telegraph Company, and a part of the expense of the work was borne by that company.

A considerable amount of reconstruction has been made necessary, also, by the laying of the large gas mains through Washington and Prospect streets, and the expense of the same has been paid by the Massachusetts Pipe Line Gas Company. The pipe in Chauncey avenue was relaid and extended during the reconstruction of that street by the Metropolitan Park Commission. Pipes have been laid through Lincoln parkway, connecting Newton street with Washington street, and a 16-inch main has been laid in Glass-house court, giving the packing house district another and bountiful supply of water direct from the 24-inch connection with the Metropolitan main in Webster avenue.

New hydrants have been set and old ones relocated wherever necessary to improve the fire service. Blow-offs have been constructed wherever practicable along the new pipe lines, and every attention has been given to make the system as complete as possible while the work of construction has been in progress.

Service Department.

Two hundred and forty-seven new service connections have been made during the year, an increase of forty-two over the previous year. Two of the premises were formerly supplied by the city of Cambridge. Nine thousand three hundred and fifteen feet of pipe has been laid in making these connections; the total mileage of service pipes is approximately 63 miles, 2,241 feet, and the number of connections 10,053.

Necessary attention has been given to the maintenance of the service system, and a large number of boxes have been set, raised, and lowered as needed, pipes repaired, sediment removed, etc.

The long-continued cold of the early part of the year at a time when there was no snow on the ground drove the frost down to the depth of our service pipes, and, in some cases, froze the water in them, requiring considerable expense for thawing and repairs. The total expenditure for labor and fittings on service maintenance account was \$2,200.74.

Meter Department.

No large increase has been made in the number of meters in service. All the various types used show excellence of construction and, on tests, indicate a satisfactory degree of accuracy in registration.

At the beginning of the year the number of meters in operation was	194
The number of operating meters added during the year was	37
Meters removed during the year	5
Total number of meters in operation December 31, 1899	226
Number of meters added to commence January 1, 1900	4
Total number of meters set	230
Motor and elevator clocks in operation December 31, 1899	7

Meters in Use December 31, 1899.

	3/8"	3/4"	1"	1 1/2"	2"	3"	4"	6"	Total.
Empire	1								1
Crown	5	6	5	1	2	1	1	1	22
Gem							1		1
Hersey			10	1	3	3			17
Hersey Disc	1		9	1	3				14
Trident	37	41	25	7	5	1	2		118
Union	3	11	10	2	6	1	2		36
Union Special		8	7						15
Lambert	3								3
Totals	50	66	66	12	19	6	6	1	226

Expenditure for labor, teaming, and materials used in meter construction was \$1,542.16. Expense of maintenance and repairs of meters and changes in meter connections, for labor and materials, was \$207.46.

Hydrants, Gates, etc.

Vigilance is the price of an efficient fire hydrant service, and that quality has been exercised to the degree that none of our hydrants have failed to properly respond to the demands made upon them by the fire department. During the severe weather of last winter the hydrants were regularly and carefully inspected, and special attention was given to those showing any liability to become inoperative through water freezing around their valves or working parts.

During the past summer every hydrant has been examined, repacked, when necessary, new valves put in, and minor repairs made as called for.

Several old-style hydrants showing inefficient operation have been removed and more suitable ones set in their places. All are now in good condition. Seventy-three hydrants have been set and twenty-five abandoned, making a net increase of forty-eight.

Expense of maintenance and repairs of hydrants for inspection, labor, and materials used in repairs, teaming, painting, etc., was \$1,558.36. Cost of constructing forty-eight new hydrants was \$1,346.60.

The number of gates set during the year has been 102; three have been removed, making a net increase of ninety-nine and a total number in the city 1,134.

Cost of maintenance of main gates and boxes for labor, materials, and teaming was \$57.46. Cost of construction of ninety-nine new gates was \$982.14.

Three check valves have been set between the high and low service as follows:—

Ten-inch in Washington street at Bonner avenue.

Ten-inch in Summer street at Cedar street.

Twelve-inch in grounds of Tufts College, near Mystic reservoir.

Thirty-three blow-offs have been constructed and one discontinued, making a net increase of thirty-two and a total number in the city of eighty-four.

Two water posts have been constructed at the request of the Committee on Street Watering; one on Cherry street, in front of the Burns School, and one on Medford street, in Gilman square. Total number now in the city is fifty-eight.

The locations of three water posts have been changed, viz.: One on Flint street, near Cross street, moved about twenty feet toward Cross street; one on Concord avenue, corner of Marion street, moved to opposite the Knapp School; one on Columbus avenue, corner of Stone avenue, moved to opposite side of the street.

Expense of construction and maintenance of water posts was as follows:—

Cost of setting two new water posts, complete,		
Materials	\$91 23	
Labor and teaming	32 49	
		\$123 72
Maintenance of water posts,		
Materials	\$155 15	
Labor and teaming	245 78	
		400 93

Following is a summary of the various fixtures of the water system:—

Total number of public hydrants in the city . . .	870
Total number of private hydrants in the city . . .	41
Total number of gates in the city	1,134
Total number of check-valves in the city	5
Total number of water posts in the city	58
Total number of blow-offs in the city	84

Buildings and Grounds.

The new shop and stable building has proved a great convenience in the transaction of the work of the department. The pipe yard, fittings, tools, teams, and all things necessary to a prompt and efficient attendance upon the duties of the department are

now concentrated at this point, and the plant has won many expressions of commendation from water works superintendents and others who have visited the premises.

The grounds about the building have been laid out and graded; a new road has been constructed on the westerly side of the grounds; the depression west of the buildings has been filled in, and a space for a small pond has been left, which, when completed and filled, will add largely to the appearance of the grounds and buildings.

Metropolitan Water Works.

An unrestricted supply of excellent water has been furnished us by the Metropolitan Water Board, and the abnormally dry summer and fall, which has caused a shortage in the water supplies of many cities and towns, has not affected in any way the district supplied by the Metropolitan system.

The amounts estimated by the Metropolitan Water Board to be assessed by the Commonwealth upon Somerville for this city's proportion of the cost and maintenance of the Metropolitan Works, and the assessments actually levied are as follows:—

	Estimated Assessment	Actual Assessment.
1898	\$14,400 00	\$14,250 19
1899	21,200 00	20,975 58
1900	30,200 00	
1901	39,200 00	
1902	48,500 00	
1903	53,900 00	
1904	62,600 00	

It is estimated that the maximum assessment will be reached in the year 1904.

Drinking Fountains and Troughs.

In May, by order of the City Council, the care and maintenance of all drinking fountains and horse troughs was placed in the Water Department. There are now three drinking fountains, two combination fountains, and three horse troughs in the city. Two of the drinking fountains are supplied with ice water.

The fountain in Union square has been painted and gilded, a new coil of tin pipe has been placed in the ice box, and an additional non-conducting cover has been provided for the box to secure greater economy of ice. The horse trough in Union square, which has for some time been in a shaky condition, has been replaced with a substantial structure, built with less regard for ornamentation than for durability and hard service. The fountain in Gilman square was damaged by the pole of some heavy wagon, rendering it necessary to put in a new panel. The man-hole of the fountain in Teele square has been enlarged for the purpose of facilitating work on the pipes and fixtures. The iron work of the fountains has been painted, and the troughs have been regularly cleaned.

The expense of maintenance of drinking fountains and troughs for labor, materials, ice, etc., was \$273.21. The cost of construction of drinking troughs was \$183.60.

Location of Drinking Fountains.

Broadway, opposite park, near Wheatland street . . .	H
Union square, junction Somerville avenue and Washington street . . .	H
Union square, in front of Hill building . . .	D I
Highland avenue, in front of City Hall Annex . . .	D
Gilman square . . .	C
Davis square . . .	H
Davis square, in front of Medina building . . .	D I
Teale square . . .	C

H, horse trough; D, drinking fountain; I, ice water; C, combination trough and drinking fountain.

Electrolysis.

As much interest has been awakened in recent years throughout the country on account of the destructive effect on water pipes of the electric current escaping from the rails of the street car systems as now generally operated, it seemed desirable to know if the return currents of the Boston Elevated railway lines, which traverse so many of our streets, are liable to cause any injurious action to the pipes of our local water system. In order to determine to what extent our water mains may be suffering from electrolytic corrosion, a series of tests was made, with the assistance of Superintendent Backus, of the city's electrical department, covering every hydrant situated along the several car lines in the city. Readings were thus taken at 188 different hydrants located in all sections of the city.

The results of these tests indicated that the Boston Elevated Railway Company have given such careful attention to the matter of providing suitable return conductors for their power current that very little of it is escaping into the ground, or, at least, finding its way to our water mains, and, except in one or two localities, the difference of potential between the rails and pipes is so small that no apprehension need be felt at present regarding its effect on our pipes.

A comparatively high positive reading was observed at the lower end of Somerville avenue, increasing as East Cambridge was approached; this condition seems to be due to the operation of the power house in that vicinity, and can probably be relieved.

The pipes show positive readings, also, in Broadway approaching Charlestown, and investigation will be made to discover the cause and apply a remedy.

The tables appended hereto furnish further details of the department work performed during the year.

I desire to extend to you my thanks for your cordial co-operation and advice, which have largely aided me in carrying out your plans and in maintaining the efficiency of the department.

FRANK E. MERRILL, Superintendent.

LOCATIONS OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC., SET IN 1899.

NAME OF STREET.	FROM	To	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Allen ct.	Main in Park st.	Dead end	1½"	150	1½"	1							
Bartlett st.	Main in Medford st.	Con. with iron pipe	6"	526	6"	1							
Beacon st.	Main in Somerville ave.	Con. with iron pipe	12"	142	6"	1							
		{ Con. with 10" Washington st.	6"	30	6"	1							
		{ pipe opposite 47 Union sq.	10"	662	10"	2							
Bow st. and Union sq.	Con. with 10" pipe in Summer st.		8"	53	8"	1							
	Hydrant connection		6"	45	6"	1	Mathews	1					
Bowers ave.	Main in Elm st.	Con. with iron pipe	6"	142	6"	1							
Broadway	Con. with 20" at Willow ave.	Con. with 20" near Liberty ave.	20"	764	12"	2	Mathews	1	6"	4			
Broadway	E. side B. & M. R. R. bridge	Con. with iron pipe at Rogers ave.	12"	412	12"	2							
Broadway	Hydrant connection		6"	17	6"	4							
Broadway	Blow-off	Main in Benton road	6"	232	6"	4							
Cambria st.	Con. with cement pipe	Con. with Hudson st.	12"	187	6"	1							
	{ Main in Highland "	Main in Summer st.	10"	228	12"	1							
	" " "		16"	718	10"	2	Holyoke	1	4"	1			
Cedar st.	Hydrant connection		6"	5	4"	1							
Cedar st.	Blow-off		4"	10	12"	1							
Central st.	Gate				8"	1							
Chapel st.	Hydrant		6"	7	6"	1	Holyoke	1					
Chapin st.	Con. with iron pipe	Main in Mystic ave.	6"	538	8"	1	Holyoke	1					
Chauncey ave.	Gate		2"	40	2"	1							
Cherry st.	Water post		4"	45	4"	1							
Chestnut st.	Blow-off		10"	20	8"	1							
Columbia st.	Con. with Glass-house ct.		8"	81	6"	1	Mathews	1					
Columbus ave.	Con. with iron pipe	Dead end	6"	6			B. M.	1					
Conwell ave.	Hydrant												
Cooney st.	Gate												
Cooney st.	Hydrant												
		Carried forward		5,060		25		7		6			1

Locations of New Mains Laid, Length and Size, Number of Gates, Hydrants, Etc., Set in 1899. — Continued.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Curtis ave.		Brought forward	6"	5,000		25		7		6			1
Curtis st.			6"	6				1	6"	1			
Elm st.			6"	60				1					
Elm st.			6"	10				2	12"	1			
Elm st.			6"	17				1	6"	1			
Elm ct.			6"	12				1	6"	1			
Elmwood st.			8"	7				1	6"	1			
Evergreen ave.			6"	7									
Fairmount ave.			6"	5									
Fremont st.			16"	1,021									
Glass-house ct.		Con. with Water st.	6"	13				1	6"	1			
Glass-house ct.			6"	9				1					
Glass-house ct.		Con. with Yorktown st.	6"	214				2	8"				
Glendale ave.		Con. with iron pipe	6"	20									
Grove st.			6"	5				1	8"				
Hall st.		Main in Oxford st.	8"	205				1	10"				
Herscy st.			6"	8				1	4"	1			
Highland ave.			4"	12				1					
Jenny Lind ave.			6"	6				1	6"	1			
Jenny Lind ave.			6"	10				1					
Jenny Lind ave.		Main in Lincoln parkway	6"	118				1	6"	1			
Joseph st.		Con. with iron pipe	6"	6				1					
Joseph st.		Con. with Joseph st.	10"	576				1	10"				
Lincoln Parkway			8"	251				2	6"				
Line st.			6"	6				1					
Line st.		Carried forward		7,985		45		18		12			1

LOCATIONS OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC., SET IN 1899.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Allen ct.	Main in Park st.	Dead end	1½"	160	1½"	1							
Bartlett st.	Main in Medford st.	Con. with iron pipe	6"	526	6"	1							
Beacon st.	Main in Somerville ave.	Con. with iron pipe	12"	142	6"	1							
		{	6"	30	6"	1							
Bow st. and Union sq.	Con. with 10" pipe in Summer st.	{ pipe opposite 47 Union sq.	10"	663	10"	2							
		{	8"	63	8"	1							
Bow st. and Union sq.	Hydrant connection	Con. with iron pipe	6"	45	6"	1	Mathews	1					
Bowers ave.	Main in Elm st.	Con. with 20" near Liberty ave.	20"	143	6"	1							
Broadway	Con. with 20" at Willow ave.	Con. with 20" near Liberty ave.	20"	764	12"	2							
Broadway	Hydrant connection	Con. with iron pipe at Rogers ave.	6"	413	12"	1	Mathews	1	6"				
Broadway	Hydrant connection		6"	332	6"	1							
Camden st.	Con. with cement pipe	Main in Benton road	6"	292	6"	1							
	{ Main in Highland ave.	Con. with Hudson st.	12"	718	12"	1							
Cedar st.	" "	Main in Summer st.	12"	718	10"	1	Holyoke	1	4"				
	Hydrant connection		6"	5	6"	1							
Cedar st.	Blow-off		4"	10	4"	1							
Central st.	Gate		6"	7	6"	1	Holyoke	1					
Chapel st.	Hydrant		6"	508	6"	1	Holyoke	1					
Chapman ave.	Con. with iron pipe	Main in Myrtle ave.	6"	508	6"	1							
Chapman ave.	Gate		6"	508	6"	1							
Cherry st.	Water post		3"	40	3"	1							
Cherry st.	Blow-off		4"	45	4"	1							
Columbia st.	Con. with Glass-house ct.		10"	20	10"	1							
Columbia st.	Con. with iron pipe	Dead end	8"	81	8"	1	Mathews	1					
Conwell ave.	Hydrant		6"	6	6"	1	B. M.	1					
Cooney st.	Gate		6"	6	6"	1							
Cooney st.	Hydrant		6"	6	6"	1							
		Carried forward		5,061		25		7		6"			1

Locations of New Mains Laid, Length and Size, Number of Gates, Hydrants, Etc., Set in 1899. — Continued.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Curtis ave.		Brought forward	6"	5,069		25		7		6			1
Curtis st.			6"	6				1	6"	1			
Elm st.			6"	60				1					
Elm st.			6"	10				1					
Elm st.			6"	17				2	12"	1			
Elm st.			6"	17				2	6"	1			
Elm ct.			6"	12				1					
Elmwood st.			8"	2				1	6"	1			
Evergreen ave.			6"	2				1					
Farmount ave.			6"	7				1					
Fremont st.			6"	5				1					
Glass-house ct.		Con. with Water st.	16"	1,021				1					
Glass-house ct.			6"	13				1					
Glass-house ct.			6"	9				1					
Glass-house ct.		Con. with Yorktown st.	8"	214				1					
Glendale ave.		Con. with iron pipe	8"	286				2	8"				
Grove st.			6"	20				1					
Grove st.			6"	5				1					
Hall st.			8"	295				1	8"				
Hersey st.		Main in Oxford st.	8"					1	10"				
Highland ave.			6"	8				1					
Jacques st.			4"	12				1	4"	1			
Jenny Lind ave.			6"	6				1					
Jenny Lind ave.			6"	10				1	6"	1			
Jenny Lind ave.		Main in Lincoln parkway	6"	118				1					
Joseph st.		Con. with iron pipe	6"	6				1					
Joseph st.			6"	576				1	10"				
Lincoln Parkway		Main in Washington st.	10"	231				1	8"				
Line st.		Con. with Joseph st.	8"	231				2	6"				
Line st.			6"	6				1					
Line st.		Carried forward		7,985		45		18		12			1

Locations of New Mains Laid, Length and Size, Number of Gates, Hydrants, Etc., Set in 1899. — Continued.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Main st.	Hydrant	Brought forward	6"	7,985		45		18		12			1
Marion st.	Hydrant		8"	8			Mathews	1					
Meacham st.	Main in Fremont st.	Main in Moreland st.	8"	7			Mathews	1					
Meacham st.	Blow-off		4"	291	4"	1			4"	1			
Medford st.	Between School st. and Magoun sq.		12"	1,534	12"	3							
			8"	711	8"	1							
Medford st.	Hydrant connection		6"	87			{ Mathews	2					
	Gate						{ Holyoke	2					
Medford st.	Blow-off		8"	25	12"	2							
Medford st.	Blow-off		6"	38	8"	2			8"	2			
Medford st.	Blow-off		6"	10	6"	2			6"	2			
Medford st.	Main in Walnut st.	Dead end	12"	442	10"	1							
Medford st.	Hydrant connection		6"	25	2"	1	Walker	1					
Medford st.	Water post		6"	25			Walker	1					
Monmouth st.	Hydrant		6"	6									1
Moreland st.	Gate				10"	1							
Morgan st.	Main in Cedar st.	Con. with iron pipe.	10"	980	10"	2							
Morrison ave.	Hydrant connection		6"	24	6"		Mathews	3		6"			
Morrison ave.	Blow-off		6"	24									
Mt. Vernon ave.	Main in Main st.	Con. with iron pipe.	10"	17	6"	1							
Myrtle st.	Hydrant		6"	28			Holyoke	2					
	Gate				8"	1							
Myrtle st.	Con. with Wheatland st.	Con. with Chauncey ave.	12"	245									
Myrtle st.	Hydrant connection		6"	11	6"	1	Mathews	1		6"			1
Myrtle st.	Blow-off		6"	11	6"	1				6"			1
Norwood ave.	Blow-off		6"	26	6"	1							
Oakland ave.	Gate	Carried forward						32		21			2
				12,594		68							

Locations of New Mains Laid, Length and Size, Number of Gates, Hydrants, Etc., Set in 1899. — Concluded.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.	
Victoria st.	Main in Woodstock st.	Brought forward	8"	14,683		85		41		37		2	2
Villa ave.	Hydrant	Con. with iron pipe	6"	506	6"	1							
Vine ave.	Gate		6"	6	6"	1	B. M.	1					
Vine st.	Blow-off		8"	23	6"	1			6"	1			
Vine st.	S. line Somerville ave.	Con. with Tyler st.	10"	370	10"	1							
Washington st.	Hydrant connection		6"	7	2"	1	Corey	1					
Washington st.	Gate		10"	35	10"	3							
Washington st.	Gate and check valve		8"	25	6"	1			6"	1			
Washington st.	Blow-off		0"	11	6"	1			6"				
Washington st.	Blow-off		6"	10	6"	1	Mathews	1					
Washington st.	Hydrant		6"	79			Holyoke	3					
Washington st.	Hydrant		6"	79									
Water st.	Gate		8"		10"	1							
Waterhouse st.	Main in Woodstock st.	Con. with iron pipe	12"	106	6"	1							
Webster ave.	Con. with Washington st.	Con. with Somerville ave.	6"	174									
Wheatland st.	Con. with Mystic ave.		6"	15									
William st.	Hydrant		6"	6									
Willoughby st.	Main in Central st.		8"	146	8"	1	Holyoke	1					
Woodstock st.	Con. with Victoria st.	Dead end	8"	247									
Woodstock st.	Blow-off	Dead end	6"	18	6"	1			6"	1			
Wyatt st.	End of iron pipe in North Wyatt st.	Con. with iron pipe in South Wyatt st.	6"	571	6"	1							
Wyatt st.	Blow-off		4"	26	4"	1			6"	1			
Yerstown st.	Blow-off		6"	190					6"	1			
Yerstown st.	Con. with Glendale ave.	Dead end	6"	8	6"	1							
Yerstown st.	Blow-off			16,861		162		48		33		5	2

LOCATION AND LENGTH OF PIPES RELAID, GATES AND HYDRANTS RESET, 1899.

[illegible]

Location and Length of Pipes Relaid, Gates and Hydrants Reset, 1899. — Continued.

NAME OF STREET.	FROM	TO	PIPE LAID.			GATES.			HYDRANTS.			BLOW-OFFS.		
			Size.		Length.	Aband.	Relaid.		Aband.	Reset.	Kind.	Aband.	Reset.	Kind.
Curtis st.	Con. with Professors' row	Brought forward	6"	8"	3,839	6"	11	9	9	1	9	1	1	1
Curtis st.	Hydrant connection	Dead end	6"	6"	250	6"	1	8"	1	1	B. M.	1	1	1
Dartmouth st.	Con. with Medford st.	N. line Chapel st.	6"	6"	6	6"	1	6"	1	1				
Elm st.	Main in Highland ave.		6"	12"	960	6"	1	6"	1	1				
Elm st.	Hydrant connection	Dead end	3"	2"	15	3"	2	107						
Elm st.	Main in Villa ave.	Con. with iron pipe	6"	8"	231	4"	1	6"	1	1				
Elmwood st.	End of iron pipe	Con. with Medford st.	4"	6"	21	4"	1	1"	1	1				
Essex st.	Con. with Medford st.	Dead end	1"	2"	148	1"	1	1"	1	1				
Eustis st.	S. line Beacon st.	Con. with School st.	6"	8"	10	6"	2	8"	1	1				
Evergreen ave.	Con. with School st.	Dead end	4"	4"	654	4"	2	4"	1	1				
Fairmount ave.	Main in Curtis st.	Dead end	4"	4"	10	4"	6	6			Chapman	4"	1	4"
Fairmount ave.	Hydrant connection		4"	6"	6	4"	6	6			Mathews	1	1	1
Flint st.	Hydrant renewal	Dead end	2"	2"	190	2"	1	8"	1	1				
Franklin ct.	E. line Somerville ave.	N. line Elm st.	4"	8"	428	4"	8	8"	1	1				
Fremont st.	Con. with Meach'm-st. H. S.	Dead end	8"	8"	8	8"	1	6"	1	1				
Grove st.	Main in Highland ave.	Dead end	4"	6"	321	4"	1	8"	1	1				
Hall ave.	Con. with Elm st.	Dead end	4"	6"	10	4"	2	8"	1	1				
Hall st.	W. line Cedar st.	8' E. from Medford st.	4"	8"	940	4"	2	6"	1	1				
Hudson st.	Con. with Cedar st.		4"	8"	8	4"	8	8"	1	1				
Jenny Lind ave.	N. line Vernon st.	Con. with Cooney st.	4"	6"	53	4"	6	6"	1	1	B. M.	1	1	1
Jenny Lind ave.	Hydrant connection	Con. with Medford-st. L. S.	4"	6"	1,120	4"	1	10"	1	1				
Line st.	Main in Washington st.	Con. with iron pipe	6"	10"	18	6"	2	6"	1	1				
Lowell st.	Con. with Medford-st. L. S.		6"	10"	686	6"	2	10"	1	1				
Main st.	Main in Broadway	Carried forward	6"	10"	10,042	6"	25	23	12	12		3	3	3

Location and Length of Pipes Relaid, Gates and Hydrants Reset, 1899. — Continued.

NAME OF STREET.	FROM	TO	PIPE LAID.			GATES.			HYDRANTS.			BLOW-OFFS.		
			Size.		Length.	Aband.	Size.	No.	Aband.	Size.	No.	Kind.	No.	Reset.
			Aband.	Relaid.										
Main st.	Hydrant connection Main in Concord ave. 15' E. from W. line School st. Con. with 12" L. S. at Central st.	Brought forward	6"	6"	10,042	25	23	12			12		3	2
Marion st.		Con. with Adrian st.	6"	8"	8	1	8"	1						
Medford st.		Con. with Thurston st.	6"	12"	2,700	3	12"	4						
		Main in Broadway	12"		8"	1								
Medford st.	Hydrant connection		6"	6"	50									
Monmouth st.	Main in Harvard st.	Con. with iron pipe	2"	6"	215	2	2"	1						
Moreland st.	Main in Main st.	Con. with iron pipe	6"	10"	183	1	6"	1						
Morgan st.	Con. with Park st.		4"	6"	31		10"	1						
Morrison st.	Con. with Elm st.		6"	6"	4									
Myrtle st.	N. line Washington st.	Con. with iron pipe	6"	8"	896	1	8"	1						
Myrtle st.	Main in Perkins st.	N. line Pearl st.	6"	6"	6									
Myrtle st.	Hydrant connection		6"	6"	42	1	6"	1						
Norwood st.	Con. with Medford-st. H. S.		4"	6"	16									
Oakland ave.	Con. with School st.		6"	6"	431	1	6"	1						
Oxford st.	W. line School st.		4"	6"	391	1	6"	1						
Backard ave.	End of iron pipe	Con. with iron pipe	12"	12"	34	1	12"	1						
Park ave.	Main in Professors' row	E. line Central st.	6"	6"	24									
Park st.	Con. with Elm st.	12' S. from Professors' row	6"	12"	1,240	2	12"	2						
Park st.	Main in Beacon st.	Con. with iron pipe	6"	6"	8									
Partridge ave.	Hydrant connection		6"	6"	58	1	6"	1						
Pinckney st.	Con. with Medford st.		6"	6"										
	Hydrant renewal	Carried forward			16,903	39		37					3	2

Location and Length of Pipes Relaid, Gates and Hydrants Reset, 1899. — Concluded.

NAME OF STREET.	FROM	TO	PIPE LAID.			GATES.			HYDRANTS.			BLOW-OFFS.		
			Aband.	Size.	Relaid.	Length.	Aband.	Size.	Reset.	Kind.	No.	Aband.	Kind.	Reset.
Professors' row	Main in Curtis st.	Brought forward	6"	8"	8"	16,903	39	6"	37		20	3		2
Professors' row	Hydrant connection	Main in Packard ave.	6"	6"	8"	742	2	8"	2					
Quincy st.	Main in Summer st.	Con. with iron pipe	4"	8"	10	783	1	8"	1	B. M.	1			
Quincy st.	Hydrant connection	Con. with Line st.	4"	6"	7	224				B. M.	1			
Smith ave.	S. line Beacon st.	Easterly	8"	12"	36	40	1	8"	1					
Somerville ave.	Con. with 12" pipe	Con. with iron pipe	4"	8"	8									
Sycamore st.	Main in Medford st.	Hydrant renewal	2"	6"	27									
Taunton st.	Con. with Marion st.	Con. with Medford st.	6"	6"	34									
Tennysen st.	Con. with Medford st.	Con. with Medford st.	6"	8"	33									
Thurston st.	Con. with Medford st.	Con. with Medford st.	6"	8"	18									
Trull st.	Hydrant branch	Dead end	6"	6"	16									
Union sq.	Main in Winslow ave.	Hydrant renewal	3"	2"	288									
Villa ave.	Hydrant connection	Dead end	4"	6"	54									
Ward st.	Main in Washington st.	Con. with Line st.	4"	6"	20									
Washington ave.	S. line Beacon st.	Con. with Washington st.	10"	16"	50									
Washington st.	Con. with Washington st.	Con. with Glass-house ct.	16"	8"	594									
Waverley st.	Con. with Glass-house ct.	Main in Elm st.	4"	6"	7									
Webster ave.	Hydrant connection	Con. with Elm st.	4"	6"	23									
Winslow ave.	Con. with Elm st.	W. line Concord ave.	4"	6"	200									
Winter st.	W. line Concord ave.	Con. with iron pipe	4"	6"	20									
Wyatt st.			4"	6"	200									
						20,405			47		25	3		3

Hydrants — Construction Account.

New hydrants have been set in the following locations :—

Bow street, 74 feet north from Walnut street, 6-inch Mathews.
 Broadway, 5 feet east from Wilson avenue, 6-inch Mathews.
 Cedar street, 22 feet south from Highland avenue, 6-inch Holyoke.
 Chapel street, 14 feet east from Chandler street, 6-inch Holyoke.
 Chauncey avenue, 437 feet south from Mystic avenue, 6-inch Holyoke.
 Conwell avenue, 20 feet west from Curtis street, 6-inch Mathews.
 Cooney street, 98 feet north from Line street, 4-inch Boston Machine.
 Curtis avenue, 206 feet west from Curtis street, 4-inch Boston Machine.
 Elm street, 8 feet south from Hall avenue, 6-inch Mathews.
 Fairmount avenue, 280 feet west from Curtis street, 6-inch Holyoke.
 Fremont street, opposite Meacham street, 6-inch Corey.
 Glass-house court, 360 feet west from Water street, 6-inch Mathews.
 Grove street, 163 feet south from Highland avenue, 6-inch Holyoke.
 Hall street, 269 feet west from Cedar street, 6-inch Holyoke.
 Jaques street, 10 feet west from Chauncey avenue, 4-inch Boston Machine.
 Jenny Lind avenue, 320 feet north from Vernon street, 6-inch Mathews.
 Joseph street, 100 feet west from Adrian street, 6-inch Mathews.
 Line street, 100 feet west from Smith avenue, 6-inch Mathews.
 Main street, junction with Broadway, 6-inch Mathews.
 Marion street, 31 feet south from Adrian street, 6-inch Mathews.
 Medford street, 31 feet south from Dartmouth street, 6-inch Holyoke.
 Medford street, 15 feet south from Lee street, 6-inch Mathews.
 Medford street, 16 feet south from Bartlett street, 6-inch Holyoke.
 Medford street, 56 feet north from Lowell street, 6-inch Mathews.
 Medford street, 266 feet north from Walnut street, 6-inch Walker.
 Monmouth street, 156 feet east from Harvard street, 6-inch Walker.
 Morrison avenue, 124 feet west from Cedar street, 6-inch Mathews.
 Morrison avenue, 44 feet east from Pearson avenue, 6-inch Mathews.
 Morrison avenue, 124 feet east from Rogers avenue, 6-inch Mathews.
 Myrtle street, 219 feet north from Pearl street, 6-inch Holyoke.
 Myrtle street, 218 feet north from Washington street, 6-inch Holyoke.
 Mystic avenue, 11 feet west from Chauncey avenue, 6-inch Mathews.
 Oxford street, 46 feet east from Trull lane, 6-inch Mathews.
 Park street, 69 feet south from Somerville avenue, 6-inch Mathews.
 Professors' row, 113 feet east from Curtis street, 4-inch Boston Machine.
 Professors' row, 3 feet west from Packard avenue, 6-inch Holyoke.
 Quincy street, 26 feet south from Summer street, 6-inch Holyoke.
 Quincy street, 91 feet north from Somerville avenue, 6-inch Mathews.
 Raymond avenue, 728 feet west from Curtis street, 6-inch Corey.
 School street, 31 feet south from Oakland avenue, 6-inch Mathews.
 Simpson avenue, 142 feet east from Holland street, 6-inch Mathews.
 Villa avenue, 121 feet south from Winslow avenue, 4-inch Boston Machine.
 Vine street, 32 feet south from Somerville avenue, 6-inch Corey.
 Washington street, 62 feet north from Line street, 6-inch Mathews.
 Washington street, 2 feet east from Bartlett street, 6-inch Holyoke.
 Washington street, 3 feet west from Murray street, 6-inch Holyoke.
 Washington street, 3 feet west from Waverley street, 6-inch Holyoke.
 William street, 8 feet east from Chandler street, 6-inch Holyoke.

Hydrants — Renewal Account.

The following changes have been made in the kind and location of hydrants :—

Adrian street, 4-inch Boston Machine hydrant, set 93 feet east from Marion street, and 4-inch Boston Machine hydrant removed from 106 feet east from Marion street.

Beacon street, 46 feet west from Sacramento street.
Beacon street, 15 feet west from Kent street.
Beacon street, 4 feet west from Ivaloo street.
Beacon street, 68 feet east from Park street.
Beacon street, 18 feet east from Durham street.
Beacon street, 26 feet east from Washington street.
Beacon street, 90 feet east from Calvin street.
Beacon street, 194 feet east from Calvin street.
Beacon street, 28 feet west from Buckingham street.
Beacon street, 208 feet east from Buckingham street.
Beacon street, 6 feet east from Concord avenue.
Beech street, 4 feet south from Atherton street.
Beech street, 31 feet east from Spring street.
Belmont street, 206 feet north from Spring-hill terrace.
Belmont street, 241 feet north from Summer street.
Belmont street, 243 feet south from Summer street.
Belmont street, 10 feet north from Belmont place.
Belmont street, 222 feet south from Belmont place.
Belmont street, 185 feet north from Somerville avenue.
Benedict street, 33 feet east from Mystic street.
Bennett street, 166 feet east from Prospect street.
Benton road, 2 feet north from Cambria street.
Benton road, 28 feet south from Highland avenue.
Berkeley street, 8 feet east from Central street.
Berkeley street, 150 feet east from Hersey street.
Berkeley street, 28 feet west from School street.
Berkeley street, 212 feet west from Hersey street.
Billingham street, 126 feet north from William street.
Bolton street, 203 feet north from Houghton street.
Bolton street, 3 feet south from Oak street.
Bonair street, 26 feet west from Cross street.
Bonair street, 90 feet east from Autumn street.
Bonair street, 121 feet east from Arthur street.
Bonair street, 67 feet east from Dana street.
Bonair street, opposite Melvin street.
Bonair street, 117 feet east from Walnut street.
Bond street, 63 feet south from Jaques street.
Bonner avenue, 171 feet north from Washington street.
Boston avenue, 110 feet south from bridge over Mystic river.
Boston avenue, 492 feet north from Gove street.
Boston street, 207 feet west from Bigelow street.
Boston street, 87 feet east from Bigelow street.
Boston street, 6 feet north from High street.
Bow street, 102 feet north from Warren avenue.
Bow street, 23 feet west from Wesley park.
Bow street, 25 feet east from Bow-street place.
Bow street, 74 feet north from Walnut street.
Bowdoin street, 65 feet north from Fremont avenue.
Bradley street, 26 feet south from Veazie street.
Brastow avenue, 202 feet east from Porter street.
Brastow avenue, 115 feet west from Lowell street.
Broadway, 50 feet east from Mt. Pleasant street.
Broadway, 20 feet west from George street.
Broadway, 21 feet west from Broadway place.
Broadway, 83 feet east from Cutter street.
Broadway, 7 feet east from Glen street.
Broadway, 21 feet east from Rush street.
Broadway, 15 feet west from Cross street.
Broadway, 7 feet west from Autumn street.
Broadway, 6 feet west from Montgomery avenue.
Broadway, 33 feet west from Walnut street.
Broadway, 4 feet east from Sargent avenue.

Broadway, 3 feet west from Melvin street.
Broadway, 157 feet west from Grant street.
Broadway, 117 feet east from Marshall street.
Broadway, 62 feet west from Marshall street.
Broadway, 3 feet west from School street.
Broadway, corner Thurston street.
Broadway, 209 feet east from Central street.
Broadway, 104 feet west from Norwood avenue.
Broadway, 20 feet west from Farm lane.
Broadway, 288 feet east from Cedar street.
Broadway, opposite Cedar street.
Broadway, 5 feet east from Wilson avenue.
Broadway, 252 feet west from Wilson avenue.
Broadway, 115 feet west from Rogers avenue.
Broadway, 236 feet west from Liberty avenue.
Broadway, 175 feet west from Elm street.
Broadway, 6 feet west from Billingham street.
Broadway, 9 feet west from Packard avenue.
Broadway, 32 feet east from Westminster street.
Broadway, 237 feet east from Endicott avenue.
Broadway, 6 feet west from Endicott avenue.
Broadway, 9 feet west from Garrison avenue.
Broadway, 138 feet west from Waterhouse street.
Broadway, 330 feet west from Waterhouse street.
Broadway park, near the pond.
Brook street, 18 feet west from Rush street.
Browning road, 302 feet west from Sycamore street.
Browning road, 136 feet east from Central street.
Buckingham street, 2 feet south from Dimick street.
Burnside avenue, 259 feet north from Elm street.
Burnside avenue, 120 feet south from Summer street.
Cameron avenue, 166 feet south from Holland street.
Cameron avenue, opposite Mead street.
Cameron avenue, 26 feet south from Glendale avenue.
Campbell park, 258 feet west from Meacham street.
Cedar street, 226 feet south from Sartwell avenue.
Cedar street, 98 feet north from Sartwell avenue.
Cedar street, 61 feet north from Hall street.
Cedar street, 22 feet south from Highland avenue.
Cedar street, 12 feet north from Highland avenue.
Cedar street, 10 feet north from Albion street.
Cedar street, 124 feet south from Warwick street.
Cedar street, 50 feet north from Clyde street.
Cedar street, 24 feet south from Murdock street.
Cedar street, 270 feet south from Broadway.
Central street, 50 feet south from Broadway.
Central street, 6 feet north from Forster street.
Central street, 9 feet north from Vernon street.
Central street, 187 feet south from Vernon street.
Central street, 6 feet north from Albion street.
Central street, 1 foot south from Summer street.
Chandler street, 16 feet south from Broadway.
Chandler street, 206 feet north from Park avenue.
Chapel street, 14 feet east from Chandler street.
Charles street, 183 feet south from Washington street.
Charnwood road, 79 feet west from Gordonia road.
Chauncey avenue, 11 feet north from Broadway.
Chauncey avenue, 437 feet south from Mystic avenue.
Cherry street, 7 feet south from Sartwell avenue.
Cherry street, 254 feet north from Sartwell avenue.
Cherry street, 252 feet north from Summer street.
Cherry street, 26 feet south from Highland avenue.

Chester street, 15 feet north from Chester place.
Chestnut street, 480 feet south from Poplar street.
Chestnut street, 246 feet south from Poplar street.
Church street, 9 feet south from Summer street.
Church street, 300 feet south from Summer street.
Church street, 29 feet north from Somerville avenue.
Church street, 16 feet south from Somerville avenue.
City stables, east end of yard.
Claremon street, 255 feet south from Holland street.
Clarendon avenue, 253 feet south from Broadway.
Clarendon avenue, opposite house No. 66.
Clark street, 200 feet west from Newton street.
Clark street, 412 feet west from Newton street.
Clyde street, 250 feet east from Cedar street.
Clyde street, opposite Murdock street.
Columbia street, 3 feet south from Beach avenue.
Columbia street, 8 feet south from Columbia court.
College avenue, 700 feet north from Broadway.
Columbus avenue, 150 feet east from Bonner avenue.
Columbus avenue, 118 feet west from Bonner avenue.
Columbus avenue, 35 feet west from Stone avenue.
Columbus avenue, 8 feet east from Walnut street.
Concord avenue, 154 feet west from Prospect street.
Concord avenue, 76 feet east from Concord square.
Concord avenue, on east line of Knapp school.
Concord avenue, 313 feet east from Springfield street.
Concord avenue, 24 feet east from Springfield street.
Concord avenue, 7 feet east from Marion street.
Concord avenue, 6 feet south from Hammond street.
Concord avenue, 20 feet east from Wyatt street.
Conwell avenue, 20 feet west from Curtis street.
Conwell avenue, 460 feet west from Curtis street.
Conwell street, 6 feet south from Highland avenue.
Conwell street, 3 feet north from Francis street.
Cook street, 74 feet north from Wyatt street.
Cooney street, 98 feet north from Line street.
Cottage avenue, 206 feet west from Russell street.
Craigie street, 216 feet south from Summer street.
Craigie street, 232 feet north from Kimball street.
Craigie street, 77 feet south from Kimball street.
Craigie street, 126 feet north from Somerville avenue.
Crescent street, 80 feet south from Hadley place.
Crocker street, 4 feet south from Highland avenue.
Crocker street, north corner Crown street.
Cross street, north corner Otis street.
Cross street, 6 feet north from Pearl street.
Cross street, 32 feet north from Cross-street place.
Cross street, 62 feet north from Flint street.
Cross street, 16 feet north from Gilman street.
Cross street, 13 feet south from Auburn avenue.
Cross street, 39 feet north from Alston street.
Curtis avenue, 206 feet west from Curtis street.
Curtis street, 6 feet north from Broadway.
Curtis street, 3 feet south from Electric avenue.
Curtis street, 137 feet north from Ware street.
Curtis street, 8 feet south from Raymond avenue.
Curtis street, 34 feet south from Professors' row.
Curtis street, 225 feet north from Professors' row.
Cutter avenue, 11 feet south from Highland avenue.
Cutter square, 95 feet west from Cutter avenue.
Cutter street, 444 feet south from Broadway.
Dane avenue, 162 feet west from Leland street.

Dane avenue, 169 feet east from Dane street.
Dane street, 9 feet north from Tyler street.
Dane street, 260 feet south from Skehan street.
Dane street, 55 feet north from Skehan street.
Dartmouth street, 288 feet south from Broadway.
Dartmouth street, 53 feet south from Evergreen avenue.
Dartmouth street, 171 feet north from Medford street.
Day street, 10 feet south from Elm street.
Day street, 195 feet south from Herbert street.
Day street, 4 feet north from Orchard street.
Dell street, 255 feet west from Glen street.
Delaware street, 246 feet east from Aldrich street.
Derby street, 400 feet east from Temple street.
Dickinson street, 20 feet east from Beacon street.
Dover street, 203 feet south from Elm street.
Dover street, 312 feet north from Orchard street.
Dover street, 3 feet north from Orchard street.
Durham street, opposite Skehan street.
Durham street, 5 feet west from Hanson street.
Edmonds street, 15 feet south from Broadway.
Ellsworth street, 7 feet west from Rush street.
Elm street, 59 feet west from Craigie street.
Elm street, 17 feet west from Porter street.
Elm street, 28 feet east from Linden avenue.
Elm street, 11 feet east from Mossland street.
Elm street, 9 feet west from Cedar street.
Elm street, 153 feet east from Cherry street.
Elm street, 110 feet west from Cherry street.
Elm street, 14 feet east from Burnside avenue.
Elm street, 104 feet east from Willow avenue.
Elm street, 20 feet east from St. James avenue.
Elm street, 9 feet west from Elston street.
Elm street, 90 feet west from Windom street.
Elm street, 25 feet west from Russell street.
Elm street, 11 feet west from Grove street.
Elm street, 82 feet west from Chester street.
Elm street, 12 feet north from Winter street.
Elm street, 6 feet south from Morrison street.
Elm street, 8 feet south from Hall avenue.
Elm street, 53 feet west from Francesca avenue.
Elm street, opposite Kenwood street.
Elm street, 100 feet west from Broadway.
Elmwood street, 9 feet south from Holland street.
Elmwood street, 300 feet north from Harrison street.
Eliot street, 3 feet east from Park street.
Endicott avenue, 422 feet south from Broadway.
Evergreen avenue, 8 feet east from School street.
Everett avenue, 5 feet west from Cross street.
Everett avenue, 9 feet east from Dana street.
Everett avenue, 449 feet west from Cross street.
Everett street, opposite Emerson street.
Fairlee street, 134 feet west from Cherry street.
Fairmount avenue, 280 feet west from Curtis street.
Fairmount avenue, opposite Watson street.
Farragut avenue, 258 feet south from Broadway.
Farragut avenue, 537 feet south from Broadway.
Fenwick street, 40 feet north from Broadway.
Fiske avenue, 120 feet east from Hinckley street.
Fitchburg street, 395 feet east from Linwood street.
Flint street, 18 feet east from Flint avenue.
Flint street, 59 feet east from Cross street.
Flint street, 30 feet west from Franklin street.

Florence street, 206 feet south from Perkins street.
Florence street, 7 feet south from Pearl street.
Florence street, 453 feet north from Washington street.
Forster street, opposite Tennyson street.
Fosket street, 6 feet west from Bay State avenue.
Francesca avenue, 305 feet east from Elm street.
Francesca avenue, 7 feet west from Liberty avenue.
Franklin street, 14 feet north from Arlington street.
Franklin street, 76 feet south from Webster street.
Franklin street, 156 feet south from Pearl street.
Franklin street, 80 feet south from Oliver street.
Franklin street, 87 feet south from Palmer avenue.
Franklin street, 29 feet north from Washington street.
Fremont street, 82 feet north from Main street.
Fremont street, 343 feet north from Main street.
Fremont street, opposite Meacham street.
Fremont street, 287 feet north from Meacham street.
Fremont street, 25 feet north from East Albion street.
Frost avenue, 75 feet east from Sherman street.
Fountain avenue, 280 feet west from Glen street.
Garden court, 357 feet south from Somerville avenue.
Garfield avenue, 24 feet south from Mystic avenue.
Garrison avenue, 235 feet south from Broadway.
Gibbens street, 202 feet west from Central street.
Gibbens street, 129 feet west from Benton avenue.
Gilman square, opposite Marshall street.
Gilman street, 103 feet east from Walnut street.
Gilman street, 143 feet east from Jasper street.
Gilman street, 8 feet west from Aldrich street.
Gilman street, 176 feet east from Aldrich street.
Gilman street, 295 feet west from Cross street.
Glass-house court, 360 feet west from Water street.
Glen street, 147 feet south from Broadway.
Glen street, 8 feet north from Brook street.
Glen street, 6 feet north from Webster street.
Glen street, 1 foot north from Flint street.
Glen street, 11 feet north from Fountain avenue.
Gorham street, 310 feet south from Holland street.
Gorham street, 67 feet north from Howard street.
Grand View avenue, 286 feet east from Vinal avenue.
Grant street, 2 feet north from Derby street.
Greene street, 295 feet south from Summer street.
Greenville street, 148 feet north from Boston street.
Greenville street, 33 feet north from High street.
Grove street, 163 feet south from Highland avenue.
Hall avenue, 310 feet east from Elm street.
Hall avenue, 306 feet west from Liberty avenue.
Hall avenue, 9 feet west from Liberty avenue.
Hall street, 269 feet west from Cedar street.
Hamlet street, 321 feet south from Highland avenue.
Hammond street, 30 feet west from Dickinson street.
Hancock street, 258 feet south from Summer street.
Hanson street, 12 feet south from Village street.
Hanson street, 9 feet south from Nevada avenue.
Hanson street, 6 feet south from Skehan street.
Harvard street, 13 feet north from Beech street.
Harvard street, 23 feet north from Harvard place.
Harrison street, 77 feet east from Kent street.
Harrison street (Ward 4), 4 feet east from Elmwood street.
Hawkins street, 50 feet north from Lake street.
Hawthorne street, 8 feet east from Cutter avenue.
Hawthorne street, 209 feet east from West street.

Heath street, 3 feet west from Temple street.
Heath street, 308 feet west from West street.
Heath street, 100 feet west from Bond street.
Heath street, 4 feet east from Fenwick street.
Heath street, 5 feet east from Moreland street.
Henderson street, 107 feet north from Wilton street.
Herbert street, 163 feet west from Chester street.
High street, 289 feet west from Boston street.
Highland avenue, 28 feet west from Hamlet street.
Highland avenue, 5 feet east from Walnut street.
Highland avenue, 262 feet west from Walnut street.
Highland avenue, 80 feet east from Vinal avenue.
Highland avenue, 41 feet west from Putnam street.
Highland avenue, 75 feet west from Prescott street.
Highland avenue, 114 feet west from School street.
Highland avenue, 410 feet west from School street.
Highland avenue, 112 feet west from Trull lane.
Highland avenue, 171 feet east from Central street.
Highland avenue, 214 feet east from Spring-hill terrace.
Highland avenue, 23 feet west from Spring-hill terrace.
Highland avenue, 20 feet west from Belmont street.
Highland avenue, 4 feet east from Tower street.
Highland avenue, 2 feet east from Porter street.
Highland avenue, 212 feet east from Cedar street.
Highland avenue, 35 feet east from Fanning avenue.
Highland avenue, 43 feet west from Lesley avenue.
Highland avenue, 3 feet west from Willow avenue.
Highland avenue, 6 feet west from Grove street.
Highland avenue, 218 feet west from Grove street.
Highland avenue, 64 feet east from Elm street.
Hinckley street, 106 feet south from Broadway.
Holland street, 39 feet west from Dover street.
Holland street, 8 feet west from B. & M. R. R. crossing.
Holland street, 5 feet east from Jay street.
Holland street, 3 feet east from Paulina street.
Holland street, 94 feet east from Claremon street.
Homer square, 200 feet west from Bonner avenue.
Houghton street, 82 feet west from Prospect street.
Houghton street, 3 feet west from Bolton street.
Houghton street, 10 feet west from Oak street.
Hudson street, 12 feet east from Waldo street.
Hudson street, opposite Benton road.
Hudson street, 294 feet east from Lowell street.
Hudson street, 362 feet west from Lowell street.
Hudson street, 675 feet west from Lowell street.
Ibbetson street, 256 feet north from Somerville avenue.
Ibbetson street, 6 feet south from Kimball street.
Irving street, 6 feet south from Broadway.
Irving street, 285 feet south from Broadway.
Irving street, 542 feet north from Holland street.
Irving street, 190 feet north from Holland street.
James street, 100 feet north from Pearl street.
Jaques street, 10 feet west from Chauncey avenue.
Jaques street, 8 feet west from Grant street.
Jaques street, 360 feet east from Temple street.
Jaques street, 185 feet west from Temple street.
Jaques street, 410 feet east from Bond street.
Jasper street, 5 feet south from Virginia street.
Jay street, 82 feet north from Howard street.
Jenny Lind avenue, 224 feet south from Broadway.
Jenny Lind avenue, 16 feet north from Vernon street.
Jenny Lind avenue, 320 feet north from Vernon street.

Jenny Lind avenue. 467 feet north from Vernon street.
Joseph street, 100 feet west from Adrian street.
Josephine avenue. 397 feet north from Morrison street.
Joy street, 34 feet south from Washington street.
Joy street, 502 feet south from Washington street.
Joy street, 271 feet north from Poplar street.
Kensington avenue, 6 feet north from Broadway.
Kent court, 205 feet west from Kent street.
Kidder avenue. 346 feet east from Elm street.
Kingman court. 282 feet south from Washington street.
Kingston street, 95 feet west from Thorndike street.
Knowlton street, opposite Morton street.
Lake street. 220 feet west from Hawkins street.
Lake street, 4 feet east from Carlton street.
Laurel street, 50 feet north from Greene street.
Laurel street, 8 feet north from Park place.
Lawrence street, 9 feet south from Richardson street.
Leland street, 14 feet south from Dane avenue.
Lexington avenue, 3 feet west from Fanning avenue.
Liberty avenue, 3 feet north from Kidder avenue.
Lincoln street, 174 feet north from Perkins street.
Lincoln avenue, 206 feet west from Mt. Vernon street.
Linden street, 31 feet north from Charlestown street.
Linden street, 237 feet south from Somerville avenue.
Linden avenue, 118 feet south from Gilson terrace.
Linden avenue, 255 feet south from Olive avenue.
Linden avenue, 30 feet north from Olive avenue.
Line street, 272 feet west from Cooney street.
Line street, 100 feet west from Smith avenue.
Linwood street, 385 feet south from Washington street.
Linwood street, 48 feet south from Lamson court.
Linwood street, 52 feet south from London street.
Linwood street, 2 feet south from Linwood place.
London street, 383 feet east from Linwood street.
Loring street, 273 feet north from Somerville avenue.
Lowell street, 1 foot north from Fiske avenue.
Lowell street, 183 feet south from Richardson street.
Lowell street, opposite Vernon street.
Lowell street, 3 feet south from Princeton street.
Lowell street, 163 feet south from Highland avenue.
Lowell street, 53 feet north from Crown street.
Lowell street, 16 feet north from Kimball street.
Madison street. 467 feet west from School street.
Main street, junction with Broadway.
Main street, 112 feet west from Mt. Vernon avenue.
Main street, west corner of Moreland street.
Mansfield street, 190 feet north from Somerville avenue.
Mansfield street, 189 feet south from Washington street.
Maple avenue, 294 feet east from School street.
Maple street, 7 feet south from Jackson street.
Maple street, 87 feet north from Poplar street.
Marion street, 31 feet south from Adrian street.
Marshall street, 80 feet south from Stickney avenue.
Marshall street, 30 feet north from Stickney avenue.
Marshall street, opposite Howe street.
Marshall street, 5 feet north from Evergreen avenue.
Marshall street, 104 feet south from Mortimer place.
Marshall street, 109 feet north from Oakland avenue.
Malloy court, 16 feet south from Somerville avenue.
Meacham street. 4 feet north from Orchard street.
Meacham street, 97 feet north from Kingston street.
Meacham street, 200 feet north from Lester terrace.

Meacham street, 14 feet west from Moreland street.
Mead street, 48 feet east from Claremon street.
Medford street, 50 feet north from Hennessey court.
Medford street, 56 feet north from Lowell street.
Medford street, 14 feet north from Jenny Lind avenue.
Medford street, 16 feet south from Bartlett street.
Medford street, 6 feet north from Central street.
Medford street, 19 feet south from Sycamore street.
Medford street, 15 feet south from Lee street.
Medford street, 46 feet south from Thurston street.
Medford street, 31 feet south from Dartmouth street.
Medford street, 5 feet north from School street.
Medford street, 184 feet north from Marshall street.
Medford street, 266 feet north from Walnut street.
Medford street, 17 feet south from Walnut street.
Medford street, 291 feet south from Walnut street.
Medford street, 8 feet south from Greenville street.
Medford street, 13 feet north from Prospect-hill avenue.
Medford street, 240 feet south from Prospect-hill avenue.
Medford street, opposite Chester avenue.
Medford street, 216 feet south from Washington street.
Medford street, 69 feet north from Jackson street.
Medford street, 21 feet north from Somerville avenue.
Medford street, 882 feet south from Somerville avenue.
Medford street, 220 feet north from Ward street.
Medford street, 55 feet north from Ward street.
Medford street, 91 feet south from Ward street.
Medford street, 46 feet south from South street.
Medford street, 17 feet south from Warren street.
Medford street, 220 feet south from Warren street.
Melrose street, 610 feet north from Mystic avenue.
Merriam street, 25 feet north from Charlestown street.
Miner street, 137 feet north from Vernon street.
Mondamin court, 272 feet west from Ivaloo street.
Monmouth street, 156 feet east from Harvard street.
Montrose street, 10 feet east from Sycamore street.
Montrose street, 399 feet west from School street.
Moore street, 21 feet north from Mead street.
Moore street, 22 feet south from Holland street.
Moore street, 335 feet south from Holland street.
Moreland street, 345 feet north from Meacham street.
Moreland street, 2 feet south from East Albion street.
Morrison avenue, 124 feet west from Cedar street.
Morrison avenue, 44 feet east from Pearson avenue.
Morrison avenue, 124 feet east from Rogers avenue.
Morrison street, 13 feet west from Newberne street.
Morrison street, 183 feet west from Clifton street.
Morrison street, 33 feet west from Grove street.
Mossland street, 114 feet north from Somerville avenue.
Munroe street, 203 feet east from Walnut street.
Murdock street, 204 feet east from Cedar street.
Murdock street, 610 feet east from Cedar street.
Mt. Vernon avenue, 156 feet north from Heath street.
Mt. Vernon avenue, 38 feet south from Heath street.
Mt. Vernon street, 246 feet north from Washington street.
Mt. Vernon street, 8 feet north from Pearl street.
Mt. Vernon street, 7 feet south from Perkins street.
Mt. Vernon street, 5 feet south from Broadway.
Mt. Pleasant street, 253 feet south from Broadway.
Myrtle street, 218 feet north from Washington street.
Myrtle street, 460 feet north from Washington street.
Myrtle street, 74 feet south from Pearl street.

Myrtle street, 210 feet north from Pearl street.
 Mystic avenue, 80 feet east from Union street.
 Mystic avenue, 3 feet west from Union street.
 Mystic avenue, 424 feet east from Austin street.
 Mystic avenue, 12 feet west from Chauncey avenue.
 Mystic avenue, 80 feet west from Temple street.
 Mystic avenue, 400 feet east from Moreland street.
 Mystic avenue, 144 feet east from Moreland street.
 Mystic avenue, 241 feet east from Moreland street.
 Mystic street, 160 feet south from Vasmington street.
 Nasina street, 190 feet south from Vilton street.
 Newbury street, 15 feet south from Holland street.
 Newbury street, 250 feet south from Holland street.
 Newbury street, 254 feet south from Holland street.
 Newbury street, 77 feet south from Holland street.
 Newbury street, 200 feet north from Cambridge line.
 New Cross street, 114 feet north from Broadway.
 Newton street, 1 feet west from Joseph street.
 Newton street, 1 feet east from Clark street.
 Norfolk street, 27 feet south from Webster avenue.
 Norfolk street, 227 feet south from Webster avenue.
 North street, 18 feet north from Broadway.
 North street, 453 feet north from Raymond avenue.
 North street, 180 feet north from City bound No. 17.
 North Union street, 287 feet north from Mystic avenue.
 Oak street, 4 feet west from Prospect street.
 Oak street, 315 feet north from Houghton street.
 Oakland avenue, 192 feet east from School street.
 Oliver street, 191 feet east from Cross street.
 Oliver street, 15 feet east from Glen street.
 Oliver street, 7 feet west from Franklin street.
 Orchard street, 4 feet west from Russell street.
 Orchard street, west corner Milton street.
 Orchard street, 9 feet east from Chester street.
 Otis street, 440 feet west from Cross street.
 Otis street, 9 feet east from Dana street.
 Otis street, 6 feet east from Wigglesworth street.
 Oxford street, 280 feet west from School street.
 Oxford street, 46 feet east from Trull lane.
 Oxford street, 237 feet west from Hersey street.
 Park avenue, 43 feet west from Elm street.
 Park avenue, 10 feet west from Chandler street.
 Park street, opposite Allen court.
 Park street, 187 feet north from Beacon street.
 Park street, 69 feet south from Somerville avenue.
 Partridge avenue, 5 feet south from Broadway.
 Partridge avenue, 26 feet north from Medford street.
 Partridge avenue, 117 feet south from Medford street.
 Partridge avenue, 421 feet south from Medford street.
 Partridge avenue, 276 feet north from Vernon street.
 Paulina street, 184 feet north from Holland street.
 Paulina street, 288 feet south from Broadway.
 Paulina street, 5 feet south from Broadway.
 Pearl street, 50 feet west from Crescent street.
 Pearl street, 7 feet north from Pinckney street.
 Pearl street, 60 feet west from Hillside avenue.
 Pearl street, 15 feet east from Delaware street.
 Pearl street, 9 feet west from Glen street.
 Pearl street, 30 feet west from Dana street.
 Pearl street, 1 foot west from Wigglesworth street.
 Pearl street, 6 feet west from Walnut street.
 Pearl street, 110 feet east from Marshall street.

Perkins street, opposite Myrtle street.
Perkins street, 78 feet east from Florence street.
Perkins street, 24 feet east from Pinckney street.
Perkins street, 56 feet east from Perkins place.
Perkins street, 21 feet east from Mt. Pleasant street.
Pinckney street, 11 feet north from Washington street.
Pinckney street, 330 feet south from Pearl street.
Pinckney street, 203 feet north from Pearl street.
Pinckney street, 71 feet south from Pearl street.
Pleasant avenue, 256 feet west from Walnut street.
Prescott street, 330 feet south from Highland avenue.
Prescott street, 586 feet south from Highland avenue.
Prescott street, 257 feet north from Summer street.
Preston street, 350 feet west from School street.
Poplar street, 21 feet west from Joy street.
Porter street, 1 foot north from Mountain avenue.
Porter street, 282 feet south from Summer street.
Porter street, 24 feet north from Williams court.
Porter street, 8 feet north from Parker place.
Professors' row, 277 feet east from College avenue.
Professors' row, 126 feet west from College avenue.
Professors' row, 291 feet west from College avenue.
Professors' row, 548 feet east from Packard avenue.
Professors' row, 156 feet east from Packard avenue.
Professors' row, 3 feet west from Packard avenue.
Professors' row, 296 feet west from Packard avenue.
Professors' row, 113 feet east from Curtis street.
Prospect-hill avenue, 10 feet north from High street.
Prospect street, 135 feet north from Bennett street.
Prospect street, 35 feet south from Concord avenue.
Prospect street, 135 feet south from Oak street.
Prospect street, 403 feet south from Oak street.
Prospect street, 63 feet north from Houghton street.
Putnam street, 116 feet south from Highland avenue.
Putnam street, 420 feet south from Highland avenue.
Putnam street, 612 feet north from Summer street.
Putnam street, 308 feet north from Summer street.
Quincy street, 91 feet north from Somerville avenue.
Quincy street, 381 feet north from Somerville avenue.
Quincy street, 26 feet south from Summer street.
Raymond avenue, 728 feet west from Curtis street.
Richardson street, 11 feet west from Nashua street.
Richdale avenue, opposite Thurston street.
Robinson street, 325 feet west from Central street.
Rogers avenue, 255 feet north from Morrison avenue.
Rossmore street, 244 feet south from Washington street.
Rush street, 84 feet south from Pearl street.
Rush street, 11 feet north from Pearl street.
Rush street, 128 feet north from Brook street.
Sacramento street, 5 feet south from Miller street.
Sanborn avenue, 55 feet east from Walnut street.
Sargent avenue, 474 feet south from Broadway.
Sargent avenue, 361 feet west from Walnut street.
Sargent avenue, 95 feet west from Walnut street.
School street, 31 feet south from Oakland avenue.
School street, 100 feet south from Maple avenue.
School street, 6 feet south from Montrose street.
School street, 128 feet north from Highland avenue.
School street, 88 feet north from Oxford street.
School street, 15 feet north from Avon street.
School street, 100 feet south from Summer street.
School street, 93 feet south from Preston street.

School street, 61 feet north from Knapp street.
Sewall street, 811 feet west from Grant street.
Shawmut street, 9 feet west from Washington street.
Shawmut street, 153 feet west from Shawmut place.
Simpson avenue, 272 feet south from Broadway.
Simpson avenue, 142 feet north from Holland street.
Skehan street, 110 feet east from Hanson street.
Somerville avenue, 188 feet west from Mossland street.
Somerville avenue, 308 feet east from Mossland street.
Somerville avenue, 600 feet east from Mossland street.
Somerville avenue, 116 feet west from Elm street.
Somerville avenue, 9 feet east from Ibbetson street.
Somerville avenue, 77 feet east from Belmont street.
Somerville avenue, 14 feet west from Garden court.
Somerville avenue, 133 feet west from Kent street.
Somerville avenue, 13 feet west from Beech street.
Somerville avenue, 11 feet east from Central street.
Somerville avenue, 15 feet west from Laurel street.
Somerville avenue, 86 feet west from Granite street.
Somerville avenue, 38 feet west from Sherman street.
Somerville avenue, 185 feet west from Hawkins street.
Somerville avenue, 88 feet west from Quincy street.
Somerville avenue, 105 feet east from Carlton street.
Somerville avenue, 90 feet west from Prospect street.
Somerville avenue, 28 feet west from Linden street.
Somerville avenue, 9 feet east from Mystic street.
Somerville avenue, 94 feet west from Mansfield street.
Somerville avenue, 126 feet east from Medford street.
Somerville avenue, 88 feet east from Poplar street.
Somerville avenue, 464 feet east from Poplar street.
Somerville avenue, 153 feet west from Linwood street.
Somerville avenue, 20 feet east from F. R. R. crossing.
Somerville avenue, 262 feet west from Franklin court.
Somerville avenue, 23 feet east from Franklin court.
Somerville avenue, 100 feet west from Cambridge line.
South street, 97 feet west from Bedford street.
South street, 2 feet east from Harding street.
South street, 25 feet west from Hunting street.
South street, 80 feet west from Willow place.
Spring street, 10 feet south from Pitman street.
Spring street, 184 feet north from Beech street.
Springfield street, 140 feet south from Concord avenue.
Springfield street, 21 feet south from Dickinson street.
Springfield street, 177 feet south from Houghton street.
Spring-hill terrace, 333 feet south from Highland avenue.
Stickney avenue, 212 feet west from Marshall street.
Stone avenue, 120 feet north from Union square.
Stone avenue, 275 feet south from Columbus avenue.
Summer street, 148 feet east from Cutter avenue.
Summer street, opposite Elston street.
Summer street, west corner Gordonia road.
Summer street, 34 feet east from Banks street.
Summer street, 6 feet east from Cherry street.
Summer street, 6 feet east from Cedar street.
Summer street, 24 feet east from Linden avenue.
Summer street, opposite Craigie street.
Summer street, 35 feet east from Porter street.
Summer street, 4 feet east from Lowell street.
Summer street, 3 feet east from Belmont street.
Summer street, 1 foot west from Spring street.
Summer street, 53 feet west from Harvard street.
Summer street, 215 feet east from Harvard street.

Summer street, 59 feet east from Central street.
Summer street, 19 feet west from Laurel street.
Summer street, 52 feet west from Preston street.
Summer street, 191 feet west from School street.
Summer street, 8 feet east from School street.
Summer street, opposite Putnam street.
Summer street, 6 feet west from Vinal avenue.
Summit avenue, 231 feet east from Vinal avenue.
Sunnyside avenue, 99 feet west from Wigglesworth street.
Sycamore street, 18 feet south from Broadway.
Sycamore street, 62 feet south from Browning road.
Sycamore street, 1 foot south from Forster street.
Sycamore street, 200 feet north from Medford street.
Sycamore street, 174 feet south from Medford street.
Sydney street, 418 feet east from Temple street.
Talbot avenue, 488 feet east from Packard avenue.
Temple street, 4 feet north from Broadway.
Temple street, 123 feet south from Sewall street.
Temple street, 11 feet north from Jaques street.
Temple street, 6 feet south from Derby street.
Temple street, 5 feet south from Sydney street.
Tenney court, 306 feet north from Mystic avenue.
Tennyson street, 4 feet south from Medford street.
Tennyson street, 117 feet north from Pembroke street.
Thorndike street, 4 feet south from Holland street.
Thorndike street, 82 feet north from Kingston street.
Thorpe place, 269 feet south from Highland avenue.
Thurston street, 187 feet north from Medford street.
Thurston street, 160 feet south from Evergreen avenue.
Thurston street, 6 feet north from Evergreen avenue.
Thurston street, 348 feet north from Evergreen avenue.
Tower street, 18 feet north from Crown street.
Tremont street, 9 feet south from Webster avenue.
Tremont street, 454 feet south from Webster avenue.
Trull street, 3 feet south from Medford street.
Trull street, 276 feet south from Medford street.
Trull street, 522 feet north from Vernon street.
Trull street, 270 feet north from Vernon street.
Tufts street, 51 feet north from Washington street.
Tufts street, 150 feet south from Glen street.
Tufts street, 43 feet north from Glen street.
Tufts street, 53 feet south from Dell street.
Tufts street, 45 feet south from Cross street.
Tyler street, 31 feet east from Vine street.
Union square, 267 feet east from Webster avenue.
Union square, 15 feet east from Stone avenue.
Union square, in the square, opposite Hill building.
Union square, centre of square.
Union street, 3 feet north from Broadway.
Union street, 123 feet south from Mystic avenue.
Veazie street, 1 foot west from James street.
Vernon street, 72 feet west from Partridge avenue.
Vernon street, 1 foot east from Bartlett street.
Vernon street, 2 feet east from Miner street.
Victoria street, 255 feet south from Broadway.
Villa avenue, 121 feet south from Winslow avenue.
Vinal avenue, 10 feet north from Pleasant avenue.
Vinal avenue, 129 feet north from Aldersey street.
Vinal avenue, 206 feet north from Summer street.
Vinal avenue, 6 feet south from Highland avenue.
Vine street, 15 feet north from Beacon street.
Vine street, opposite Eliot street.

Vine street, 32 feet south from Somerville avenue.
Virginia street, 45 feet west from Aldrich street.
Waldo street, 6 feet north from Highland avenue.
Wallace street, 37 feet south from Broadway.
Wallace street, 395 feet south from Broadway.
Wallace street, 483 feet north from Park avenue.
Wallace street, 166 feet north from Park avenue.
Wallace street, 10 feet north from Holland street.
Walnut street, opposite Veazie street.
Walnut street, 87 feet north from Gilman street.
Walnut street, 88 feet south from Wellington avenue.
Walnut street, 31 feet north from Pleasant avenue.
Walnut street, 12 feet south from Boston street.
Walter street, 28 feet west from Walnut street.
Walter street, 50 feet west from Bradley street.
Ward street, 104 feet west from Medford street.
Ward street, 3 feet east from Emery street.
Ware street, 258 feet west from Curtis street.
Warren avenue, 5 feet north from Sanborn avenue.
Warren avenue, 48 feet north from Bow street.
Warren avenue, 7 feet south from Columbus avenue.
Warwick street, 426 feet east from Cedar street.
Washington street, 69 feet west from Crescent street.
Washington street, 3 feet west from Waverley street.
Washington street, west corner Mt. Vernon street.
Washington street, 3 feet west from Murray street.
Washington street, 2 feet east from Bartlett street.
Washington street, 6 feet west from Florence street.
Washington street, 15 feet west from Myrtle street.
Washington street, 18 feet east from Franklin avenue.
Washington street, 160 feet east from Franklin street.
Washington street, 50 feet east from Shawmut street.
Washington street, 37 feet east from Rossmore street.
Washington street, 78 feet east from Boston street.
Washington street, 28 feet west from Mystic street.
Washington street, 6 feet west from Clark place.
Washington street, 156 feet west from Bonner avenue.
Washington street, 6 feet east from Kingman court.
Washington street, 243 feet east from Parker street.
Washington street, 50 feet east from Bowdoin street.
Washington street, 9 feet east from Leland street.
Washington street, 175 feet west from Dane street.
Washington street, 45 feet east from Beacon street.
Washington street, 62 feet east from Line street.
Water street, 91 feet north from South street.
Water street, 254 feet north from South street.
Water street, 354 feet north from South street.
Waterhouse street, 24 feet south from Broadway.
Waterhouse street, 326 feet south from Broadway.
Waterhouse street, 630 feet south from Broadway.
Webster avenue, 93 feet south from Washington street.
Webster avenue, 12 feet south from Everett street.
Webster avenue, 25 feet north from Newton street.
Webster avenue, 63 feet north from Prospect street.
Webster avenue, 18 feet south from Prospect street.
Webster avenue, 78 feet north from Tremont street.
Webster avenue, 3 feet north from Beach avenue.
Webster avenue, 1 foot south from Columbia court.
Webster street, 25 feet east from Cross street.
Webster street, 9 feet east from Rush street.
Webster street, 10 feet west from Cutter street.
Wellington avenue, 15 feet west from Montgomery avenue.

Wesley park, 245 feet north from Bow street.
 West street, 2 feet north from Broadway.
 West street (Ward 4), 3 feet north from Highland avenue.
 West street (Ward 4), 140 feet north from Highland avenue.
 Westminster street, 156 feet south from Electric avenue.
 Westwood road, 90 feet west from Central street.
 Westwood road, 58 feet east from Benton road.
 Wheatland street, 129 feet north from Broadway.
 Wheatland street, 9 feet south from Jaques' street.
 Wheatland street, 78 feet south from Mystic avenue.
 William street, 8 feet east from Chandler street.
 Willow avenue, 14 feet north from Summer street.
 Willow avenue, 3 feet north from Lexington avenue.
 Willow avenue, 46 feet south from Morrison street.
 Willow avenue, 42 feet south from Fosket street.
 Wilton street, 6 feet east from Nashua street.
 Wilton street, 10 feet east from Lawrence street.
 Windom street, 7 feet south from Summer street.
 Windsor road, 86 feet east from Willow avenue.
 Winslow avenue, 145 feet east from Elm street.
 Winslow avenue, 5 feet west from Grove street.
 Winter street, 130 feet east from Holland street.
 Winter-hill circle, 178 feet north from Broadway.
 Winthrop avenue, 7 feet north from Broadway.
 Woodbine street, 222 feet west from Centre street.
 Wyatt street, 8 feet south from Taunton street.
 Wyatt street, 324 feet east from Washington street.

PRIVATE HYDRANTS.

John P. Squire & Co.	7
North Packing and Provision Co.	11
Middlesex Bleachery	3
American Tube Works	2
Union Glass Works	1
Fitchburg Railroad	1
New England Dressed Meat and Wool Co.	6
Metropolitan Sewerage Pumping Station	1
Boston & Maine Railroad	8
Fresh Pond Ice Co.	1

Gates — Construction Account.

New gates have been set in the following locations:—

Allen court, 1½-inch gate, 5 feet out from north line, on west line of Park street.
 Bartlett street, 6-inch gate, 13 feet 4 inches out from north line, on east line of Medford street.
 Beacon street, 6-inch gate, 11 feet out from east line and 6 feet south from south line of Roseland street.
 Bow street and Union square, 8-inch gate, on hydrant branch 25 feet out from north line of square and 55 feet west from west line of Stone avenue.
 Bow street and Union square, 10-inch gate, 21 feet out from north line of square and 52 feet west from west line of Stone avenue.
 Bow street and Union square, 10-inch gate, 21 feet out from north line of square and 58 feet west from west line of Stone avenue.
 Bowers avenue, 6-inch gate, 7 feet out from west line, on south line of Elm street.
 Broadway, 12-inch gate, 20 feet out from south line, on west line of house No. 622.
 Broadway, 12-inch gate, 8 feet out from south line, on east line of Rogers avenue.

- Broadway, 6-inch gate, 8 feet out from south line and 5 feet west from east line of building No. 684.
- Broadway, 6-inch gate, 8 feet out from south line and 3 feet east from east line of Rogers avenue.
- Broadway, 6-inch gate, 20 feet out from south line and 4 feet west from west line of house No. 622.
- Broadway, 6-inch gate, 20 feet out from south line and 6 feet east from west line of house No. 622.
- Cambria street, 6-inch gate, 13 feet out from north line, on east line of Benton road.
- Cedar street, 12-inch gate, 10 feet out from east line, on north line of Highland avenue.
- Cedar street, 10-inch gate, 10 feet out from east line, on north line of Summer street.
- Cedar street, 10-inch gate, 10 feet out from east line, on south line of Highland avenue.
- Cedar street, 4-inch gate, 14 feet out from east line and 43 feet south from south line of Cedar avenue.
- Central street, 12-inch gate, 13 feet out from north line, on west line of Medford street.
- Chapel street, 8-inch gate, 13 feet out from south line, on east line of Chandler street.
- Chauncey avenue, 6-inch gate, 17 feet out from west line, on south line of Mystic avenue.
- Chauncey avenue, 8-inch gate, 17 feet out from west line and 7 feet north from north line of Jaques street.
- Cherry street, 2-inch gate, 3 feet out from water post located 161 feet south from Fairlee street.
- Chestnut street, 4-inch gate, 12 feet out from east line and 536 feet south from south line of Poplar street.
- Cooney street, 8-inch gate, 9 feet out from east line, on north line of Line street.
- Curtis street, 6-inch gate, 16 feet out from east line and 51 feet north from north line of house No. 54.
- Elm street, 12-inch gate, 20 feet out from east line, on north line of Morrison street.
- Elm street, 12-inch gate, 21 feet out from east line and 2 feet north from north line of Highland avenue.
- Elm street, 6-inch gate, 24 feet out from east line and 41 feet south from south line of Winslow avenue.
- Elm court, 2-inch gate, 6 feet out from south line, on west line of Villa avenue.
- Elmwood street, 6-inch gate, 9 feet out from west line, on south line of house No. 73.
- Evergreen avenue, 6-inch gate, 13 feet out from west line, on north line of School street.
- Glass-house court, 6-inch gate, 16 feet out from north line and 20 feet west from east line of Water street.
- Glendale avenue, 6-inch gate, 13 feet 4 inches out from north line, on east line of Yorktown street.
- Grove street, 8-inch gate, 13 feet out from east line, on south line of Highland avenue.
- Grove street, 8-inch gate, 13 feet out from east line, on north line of Highland avenue.
- Hersey street, 8-inch gate, 13 feet 4 inches out from east line, on north line of Berkeley street.
- Highland avenue, 10-inch gate, 20 feet out from north line and 10 feet west from east line of Cedar street.
- Jenny Lind avenue, 4-inch gate, 16 feet out from north line and 7 feet east from east line of Vernon street.
- Jenny Lind avenue, 6-inch gate, 18 feet out from north line and 22 feet east from west line of Medford street.

- Joseph street, 6-inch gate, 13 feet out from north line and 98 feet west from west line of house No. 28.
- Lincoln parkway, 10-inch gate, 45 feet out from west line, on south line of Washington street.
- Lincoln parkway, 8-inch gate, on west line of Clark street, in the parkway.
- Line street, 6-inch gate, 11 feet out from north line, on east line of Smith avenue.
- Line street, 6-inch gate, 11 feet out from north line, on east line of Washington street.
- Meacham street, 4-inch gate, 15 feet out from south line and 14 feet east from west line of Moreland street.
- Medford street, 12-inch gate, 18 feet out from west line, on north line of School street.
- Medford street, 12-inch gate, 21 feet out from west line, on south line of Central street.
- Medford street, 12-inch gate, 19 feet out from west line, on south line of Lee street.
- Medford street, 12-inch gate, 15 feet out from west line, on north line of School street.
- Medford street, 12-inch gate, 19 feet out from west line, on north line of Jenny Lind avenue.
- Medford street, 10-inch gate, 16 feet 8 inches out from east line, on south line of Walnut street.
- Medford street, 8-inch gate, 21 feet out from west line, on north line of Central street.
- Medford street, 8-inch gate, 18 feet out from west line and 19 feet south from north line of School street.
- Medford street, 8-inch gate, 15 feet out from west line and 19 feet south from north line of School street.
- Medford street, 6-inch gate, 22 feet out from west line and 4 feet north from north line of Central street.
- Medford street, 6-inch gate, 22 feet out from west line and 7 feet north from north line of Central street.
- Medford street, 6-inch gate, 21 feet out from west line and 13 feet south from north line of Lowell street.
- Medford street, 2-inch gate, 5 feet out from water post at Gilman square.
- Moreland street, 10-inch gate, 13 feet out from east line and 15 feet south from south line of Meacham street.
- Morgan street, 6-inch gate, 13 feet out from south line, on west line of Park street.
- Morrison avenue, 10-inch gate, 16 feet 8 inches out from north line, on west line of Cedar street.
- Morrison avenue, 10-inch gate, 16 feet 8 inches out from north line, on west line of Ayer avenue.
- Morrison avenue, 6-inch gate, 20 feet out from north line, on east line of Rogers avenue.
- Myrtle street, 8-inch gate, 14 feet out from east line and 22 feet south from south line of Myrtle court.
- Mystic avenue, 6-inch gate, 27 feet out from south line and 12 feet east from west line of Wheatland street.
- Norwood avenue, 6-inch gate, 21 feet west from east line of Medford street and 4 feet south from south line of Trull street.
- Oakland avenue, 6-inch gate, 13 feet out from west line, on south line of School street.
- Oxford street, 8-inch gate, 11 feet out from north line, on east line of Hersey street.
- Oxford street, 6-inch gate, 12 feet out from south line, on west line of Hersey street.

- Packard avenue, 12-inch gate, 60 feet east from east line of gate house and 14 feet south from south line of same.
- Park street, 6-inch gate, 19 feet out from east line and 99 feet south from south line of Allen court.
- Pearson road, 8-inch gate, 13 feet out from west line, on north line of Broadway.
- Prospect street, 10-inch gate, 18 feet out from south line and 1 foot east from east line of house No. 95.
- Roseland street, 2-inch gate, 13 feet 4 inches out from south line, on west line of Beacon street.
- School street, 6-inch gate, 17 feet out from west line, on north line of Summer street.
- School street, 6-inch gate, 25 feet out from south line and 15 feet east from west line of Evergreen avenue.
- Simpson avenue, 12-inch gate, 13 feet 4 inches out from north line, on east line of Holland street.
- Simpson avenue, 6-inch gate, 19 feet out from north line and 136 feet west from west line of house No. 59.
- Smith avenue, 6-inch gate, 8 feet out from west line and 1 foot north from north line of Line street.
- Somerville avenue, 12-inch gate, 10 feet out from south line and 10 feet east from east line of building No. 68.
- Stone court, 2-inch gate, 10 feet out from south line, on east line of Stone avenue.
- Summer street, 10-inch gate, 15 feet out from north line and 6 feet west from east line of Cedar street.
- Summer street, 6-inch gate, 20 feet out from north line and 24 feet west from east line of School street.
- Summer street, 6-inch gate, 14 feet out from north line and 33 feet west from east line of Vinal avenue.
- Victoria street, 6-inch gate, 13 feet 4 inches out from east line, on north line of Woodstock street.
- Villa avenue, 6-inch gate, 11 feet 8 inches out from west line, on south line of Winslow avenue.
- Vinal avenue, 6-inch gate, 13 feet out from east line, on north line of Summer street.
- Vine street, 10-inch gate, 13 feet 4 inches out from east line, on north line of Tyler street.
- Washington avenue, 2-inch gate, 7 feet out from east line, on north line of Washington street.
- Washington street, 10-inch gate, 20 feet out from north line, on east line of Bonner avenue.
- Washington street, 10-inch gate, 20 feet out from north line and 8 feet west from east line of Bonner avenue.
- Washington street, 10-inch gate, 17 feet out from north line and 5 feet west from east line of Bonner avenue.
- Washington street, 6-inch gate, 24 feet out from west line and 42 feet north from north line of Stone building.
- Washington street, 6-inch gate, 22 feet out from east line and 11 feet north from north line of Line street.
- Water street, 10-inch gate, 10 feet out from north line, on south line of Glass-house court.
- Waterhouse street, 8-inch gate, 13 feet 4 inches out from west line, on north line of Woodstock street.
- Willoughby street, 8-inch gate, 13 feet 4 inches out from north line, on east line of Central street.
- Woodstock street, 6-inch gate, 18 feet out from north line and 10 feet west from east line of Victoria street.
- Wyatt street, 6-inch gate, 25 feet out from south line, on east line of Lincoln parkway.

Wyatt street, 4-inch gate, 25 feet out from south line and 35 feet east from east line of Lincoln parkway.
 Yorktown street, 6-inch gate, 13 feet out from east line and 12 feet south from north line of Seven Pines avenue.

Gates — Renewal Account.

The following changes have been made in the size and location of main gates:—

- Adrian street, 6-inch gate, set 13 feet out from south line, on east line of Marion street, and 6-inch gate removed from 13 feet out from south line and 100 feet east from east line of Marion street.
- Bartlett street, 12-inch gate, set 10 feet out from west line, on south line of Washington street, and 3-inch gate removed from 10 feet out from west line and 26 feet south from north line of Washington street.
- Berkeley street, 8-inch gate, set 13 feet out from north line and 31 feet east from east line of Hersey street, and 4-inch gate removed from 13 feet out from north line, on east line of Hersey street.
- Berkeley street, 6-inch gate, set 18 feet out from north line and 26 feet east from east line of Hersey street, and 4-inch gate removed from 20 feet out from north line and 20 feet east from east line of Hersey street.
- Broadway, 12-inch gate, set 20 feet out from south line, on west line of Cedar street, and 8-inch gate removed from 33 feet out from south line, on west line of Cedar street.
- Chapel street, 8-inch gate, set 13 feet out from south line, on west line of Elm street, and 4-inch gate removed from same location.
- Chauncey avenue, 8-inch gate, set 17 feet out from west line, on north line of Broadway, and 12-inch gate removed from same location.
- Conwell avenue, 10-inch gate, set 13 feet out from south line, on west line of Curtis street, and 4-inch gate removed from same location.
- Curtis avenue, 6-inch gate, set 13 feet out from south line, on west line of Curtis street, and 4-inch gate removed from same location.
- Curtis street, 8-inch gate, set 13 feet out from east line and 45 feet north from south line of Professors' row, and 6-inch gate removed from 13 feet out from east line and 20 feet north from south line of Professors' row.
- Elm street, 6-inch gate, set 20 feet out from east line, on north line of Chapel street, and 6-inch gate removed from 20 feet out from east line and 6 feet south from north line of Chapel street.
- Essex street, 6-inch gate, set 13 feet out from south line, on west line of Medford street, and 4-inch gate removed from same location.
- Eustis street, 1-inch gate, set 10 feet out from west line and 8 feet north from south line of Beacon street, and 1-inch gate removed from same location.
- Fairmount avenue, 8-inch gate, set 13 feet out from north line, on west line of Curtis street, and 4-inch gate removed from same location.
- Fairmount avenue, 4-inch gate, set 14 feet out from north line and 11 feet west from west line of Watson street, and 4-inch gate removed from 14 feet out from north line, on west line of Watson street.
- Fremont street, 8-inch gate, set 13 feet 4 inches out from west line, on south line of Meacham street, and 6-inch gate removed from 13 feet 4 inches out from west line and 100 feet south from south line of Meacham street.
- Hall street, 6-inch gate, set 10 feet out from north line, on west line of Cedar street, and 4-inch gate removed from same location.

- Hudson street, 8-inch gate, set 13 feet out from north line, on east line of Cedar street, and 4-inch gate removed from same location.
- Jenny Lind avenue, 8-inch gate, set 13 feet out from north line, on west line of Medford street, and 4-inch gate removed from same location.
- Jenny Lind avenue, 6-inch gate, set 13 feet out from north line, on east line of Medford street, and 4-inch gate removed from same location.
- Lowell street, 10-inch gate, set 13 feet out from north line, on west line of Medford street, and 6-inch gate removed from same location.
- Main street, 10-inch gate, set 16 feet out from east line and 122 feet north from north line of Sycamore street, and 6-inch gate removed from 16 feet out from east line, on north line of Broadway.
- Main street, 6-inch gate, set 16 feet out from east line, on north line of Moreland street, and 6-inch gate removed from 16 feet out from east line and 20 feet south from north line of Moreland street.
- Marion street, 8-inch gate, set 13 feet 4 inches out from east line, on north line of Concord avenue, and 6-inch gate removed from same location.
- Medford street, 12-inch gate, set 19 feet out from west line, on south line of Broadway, and 12-inch gate removed from 19 feet out from west line, on north line of Hennessey court.
- Medford street, 12-inch gate, set 19 feet out from west line and 2 feet north from north line of Central street, and 12-inch gate removed from 19 feet out from west line and 14 feet north from north line of Central street.
- Medford street, 12-inch gate, set 19 feet out from west line, on south line of Central street, and 8-inch gate removed from 19 feet out from west line and 40 feet south from south line of Central street.
- Medford street, 12-inch gate, set 16 feet out from west line, on south line of Lee street, and 12-inch gate removed from 16 feet out from west line, on south line of Sycamore street.
- Monmouth street, 6-inch gate, set 13 feet out from south line, on east line of Harvard street, and 2-inch gate removed from same location.
- Moreland street, 10-inch gate, set 13 feet out from south line, on east line of Main street, and 6-inch gate removed from same location.
- Myrtle street, 8-inch gate, set 18 feet out from east line, on south line of Perkins street, and 8-inch gate removed from same location.
- Norwood avenue, 6-inch gate, set 13 feet out from south line, on east line of Medford street, and 4-inch gate removed from same location.
- Oxford street, 6-inch gate, set 12 feet out from south line, on east line of Central street, and 4-inch gate removed from 14 feet out from south line, on east line of Central street.
- Packard avenue, 12-inch gate, set 17 feet out from east line, on south line of Professors' row, and 12-inch gate removed from 17 feet out from east line and 12 feet south from south line of Professors' row.
- Park street, 12-inch gate, set 17 feet out from east line, on north line of Beacon street, and 6-inch gate removed from same location.
- Park street, 12-inch gate, set 17 feet out from east line, on north line of Ivaloo street, and 6-inch gate removed from same location.
- Partridge avenue, 6-inch gate, set 13 feet out from north line, on east line of Medford street, and 6-inch gate removed from same location.
- Professors' row, 8-inch gate, set 18 feet out from south line, on west line of Packard avenue, and 6-inch gate removed from same location.
- Professors' row, 8-inch gate, set 18 feet out from south line, on east line of Curtis street, and 6-inch gate removed from same location.
- Quincy street, 8-inch gate, set 13 feet 8 inches out from west line, on south line of Summer street, and 6-inch gate removed from same location.
- Sycamore street, 8-inch gate, set 14 feet out from north line, on east line of Medford street, and 4-inch gate removed from same location.
- Taunton street, 6-inch gate, set 7 feet out from south line, on west line of Marion street, and 3-inch gate removed from 3 feet out from south line, on west line of Marion street.

Villa avenue, 4-inch gate, set 11 feet 8 inches out from west line and 2 feet north from south line of Elm court, and 4-inch gate removed from 11 feet out from west line and 3 feet north from south line of Elm court.

Washington street, 6-inch gate, set 20 feet out from east line, on south line of Beacon street, and 4-inch gate removed from same location.

Waverley street, 6-inch gate, set 12 feet out from west line, on south line of Washington street, and 4-inch gate removed from same location.

Webster avenue, 16-inch gate, set on east line, 13 feet out from north line of Glass-house court, and 16-inch gate removed from east line, 13 feet out from south line of Glass-house court.

Winslow avenue, 8-inch gate, set 13 feet out from south line, on east line of Elm street, and 4-inch gate removed from same location.

Broadway, 8-inch gate removed from 36 feet out from south line, on west line of Cedar street.

Curtis avenue, 2-inch gate removed from 13 feet out from south line and 150 feet west from west line of Curtis street.

Union square, 8-inch gate removed from hydrant branch in square.

RECAPITULATION.

GATES.	1"	1 1/2"	2"	3"	4"	6"	8"	10"	12"	16"	Total.
Set	1	1	6	7	58	31	21	23	1	149	
Removed	1	2	2	19	15	5	5	5	1	50	

Net increase in number of gates in 1899 99

Total number of gates in the city January 1, 1900 . 1,134

Locations of Water Posts.

Albion street, 33 feet west from Centre street.
 Appleton street, 49 feet west from Willow avenue.
 Beacon street, 160 feet west from Buckingham street.
 Beacon street, 33 feet west from Vine street.
 Beacon street, 94 feet east from Sacramento street.
 Bond street, 14 feet north from Broadway.
 Boston street, 107 feet west from Greenville street.
 Broadway, 42 feet east from Franklin street.
 Broadway, 75 feet west from Winthrop avenue.
 Broadway, 6 feet west from Farm lane.
 Broadway, 193 feet east from Willow avenue.
 Broadway, 6 feet west from Irving street.
 Broadway, 120 feet west from Clarendon avenue.
 Broadway, 20 feet west from North street.
 Cherry street, 161 feet south from Fairlee street.
 Columbus avenue, opposite Stone avenue.
 Concord avenue, opposite Knapp school.
 Elm street, 25 feet west from Burnside avenue.
 Elm street, opposite Morrison street.
 Elm street, 5 feet south from Kenwood street.
 Flint street, 47 feet east from Cross street.
 Gilman street, 69 feet east from Walnut street.
 Grove street, 19 feet south from Highland avenue.
 Highland avenue, 44 feet west from Hamlet street.

Highland avenue, 50 feet west from Putnam street.
Highland avenue, 15 feet west from Central street.
Highland avenue, 42 feet east from Crocker street.
Holland street, 30 feet west from Elmwood street.
Jaques street, 159 feet west from Grant street.
Laurel street, 20 feet south from Summer street.
Linwood street, 70 feet west from Poplar street.
Medford street, at Gilman square.
Medford street, 45 feet east from Lee street.
Medford street, 19 feet east from Jenny Lind avenue.
Montrose street, 204 feet west from School street.
Mystic avenue, 33 feet west from Union street.
Orchard street, 107 feet west from Dover street.
Otis street, 127 feet west from Cross street.
Pearl street, 28 feet east from Myrtle street.
Putnam street, 96 feet north from Summer street.
School street, 116 feet south from Broadway.
School street, 50 feet north from Berkeley street.
Somerville avenue, 175 feet east from Fitchburg R. R. crossing.
Somerville avenue, 246 feet east from Poplar street.
Somerville avenue, 89 feet east from Mystic street.
Somerville avenue, 119 feet west from School street.
Somerville avenue, 92 feet west from Kent street.
Somerville avenue, 42 feet east from Mossland street.
Summer street, 14 feet east from Belmont street.
Summer street, 32 feet east from Cedar street.
Summer street, 35 feet east from Cutter avenue.
Tufts street, 114 feet east from Cross street.
Washington street, 96 feet west from Myrtle street.
Washington street, 7 feet west from Boston street.
Washington street, 34 feet west from Union square.
Washington street, opposite Leland street.
Wheatland street, 30 feet south from Mystic avenue.
Webster avenue, 68 feet north from Tremont street.

METER TABLE.

SHOWING THE NUMBER OF METERS SET, THE PURPOSE FOR WHICH THEY ARE USED, AND THE INCOME RECEIVED.

PURPOSE.	Number.	Meters Set.	Meters Removed.	Amount Received.
Apartment Houses and Tenements .	10	12	1	\$813 59
Bacon Works	4	4	1	161 08
Bakeries	2	2		63 56
Bleachery and Dye Works	1	1		414 60
Boarding-houses	4	4		85 02
Bottling Works	1	1		41 58
Bowling Alleys	1	1		12 50
Carhouses	4	6	1	659 86
Churches	1	1		15 12
Clubhouses	2	2		52 92
Coal Wharves	2	2		276 76
Colleges	1	10		105 12
Distilleries	1	1		264 36
Electric Light Stations	1	1		1,793 04
Elevator Clocks	1	1		431 00
Factories	20	22		2,889 77
Fire Stations	8	8		393 45
Foundries	2	2		85 68
Glass Works	2	2		170 21
Grain Elevators	1	1		47 46
Greenhouses	1	2		105 57
Halls	1	1		4 34
Hospitals	2	3		160 34
Hotels	3	3		264 23
Machine Shops	1	1		21 56
Milk Business	2	2		56 42
Motor Clocks	6	6		52 36
Offices and Stores	18	18		896 42
Photograph Studios	1	1		165 30
Pickle and Preserving Works	2	3	1	304 76
Poultry Farms	2	2		80 22
Printing Offices	1	1		55 02
Public Buildings	4	4		131 06
Pumping Stations	1	1		245 76
Railway Stations	4	4		191 90
Railway Yards	2	2		12,279 76
Schoolhouses	25	24		1,883 22
Slaughtering and Rendering Establishments	6	19	1	17,472 88
Soap Works	2	2		202 52
Stables	49	49		2,013 33
Steam Engines	2	2	1	72 38
Vinegar Works	2	4	1	201 55
Wood Yards	2	2		95 89
		240	7	\$45,733 47

Maintenance of Street Mains.

The following bursts and leaks on street mains occurred in 1899:—

BURSTS.

	SIZE OF MAIN	NUMBER.
	2"	1
	3'	1
	4"	2
	6"	3
	8"	2
	10"	1
	12"	3
Total		13

LEAKS.

	SIZE OF MAIN.	NUMBER
	4"	1
	6"	5
	10"	1
	12"	1
	20"	2
Total		10

Water Services.**SERVICE CONSTRUCTION.**

Two hundred and forty-seven new service connections were made in 1899, as follows:—

Owners' applications received in 1899	245
Transferred from City of Cambridge main in Rose-land street	2
	247

The following table shows the sizes and lengths laid:—

	SIZE.	NUMBER.	LENGTH.
	1½"	2	289 feet
	1"	3	195 "
	¾"	242	8,881 "
Total		247	9,315 feet.

Total number of service pipes laid to January 1, 1900, 10,053.
Total length of service pipe used in making service connections, 63 miles, 2,241 feet.

SERVICE MAINTENANCE.

Leaks repaired on service pipes	180
Iron service boxes set	143
New service gates set on old connections	81
Services cleaned of sediment, fish, etc.	58
Services replaced at city's expense on account of defective pipe and fittings	9

**Valuation of Property under Control of the Water Commissioners,
December 31, 1899.**

81 miles, 3,583 feet of iron and cement distribution mains		
1,134 gates and boxes set in connection therewith		
870 fire hydrants set in connection therewith		
58 water posts set in connection therewith		
230 water meters set in connection therewith		
Department building and grounds	32,000	00
High-service pumps and boilers	10,000	00
Department building furniture	931	10
Office furniture	1,719	05
Books, stationery, etc.	200	00
Tools	3,155	66
Horses	600	00
Wagons, sleighs, etc.	830	00
Harnesses, robes, etc.	329	50
Hay and grain	45	33
Stable equipment	121	45
Main pipe	655	48
Special castings and fittings	2,398	01
Gates and boxes	272	25
Pig lead	15	00
Service pipe and fittings	2,414	51
Meters and fittings	988	97
	\$791,676	31

The Board is also in control of 63 miles, 2,241 feet of service pipes, with 10,053 connections, the cost of which has been paid to the city by the owners of properties connected to the water mains.

REPORT OF ENGINEER AT PUMPING STATION.

HIGH SERVICE PUMPING STATION, }
SOMERVILLE, DECEMBER 31, 1899. }

To the Board of Water Commissioners:—

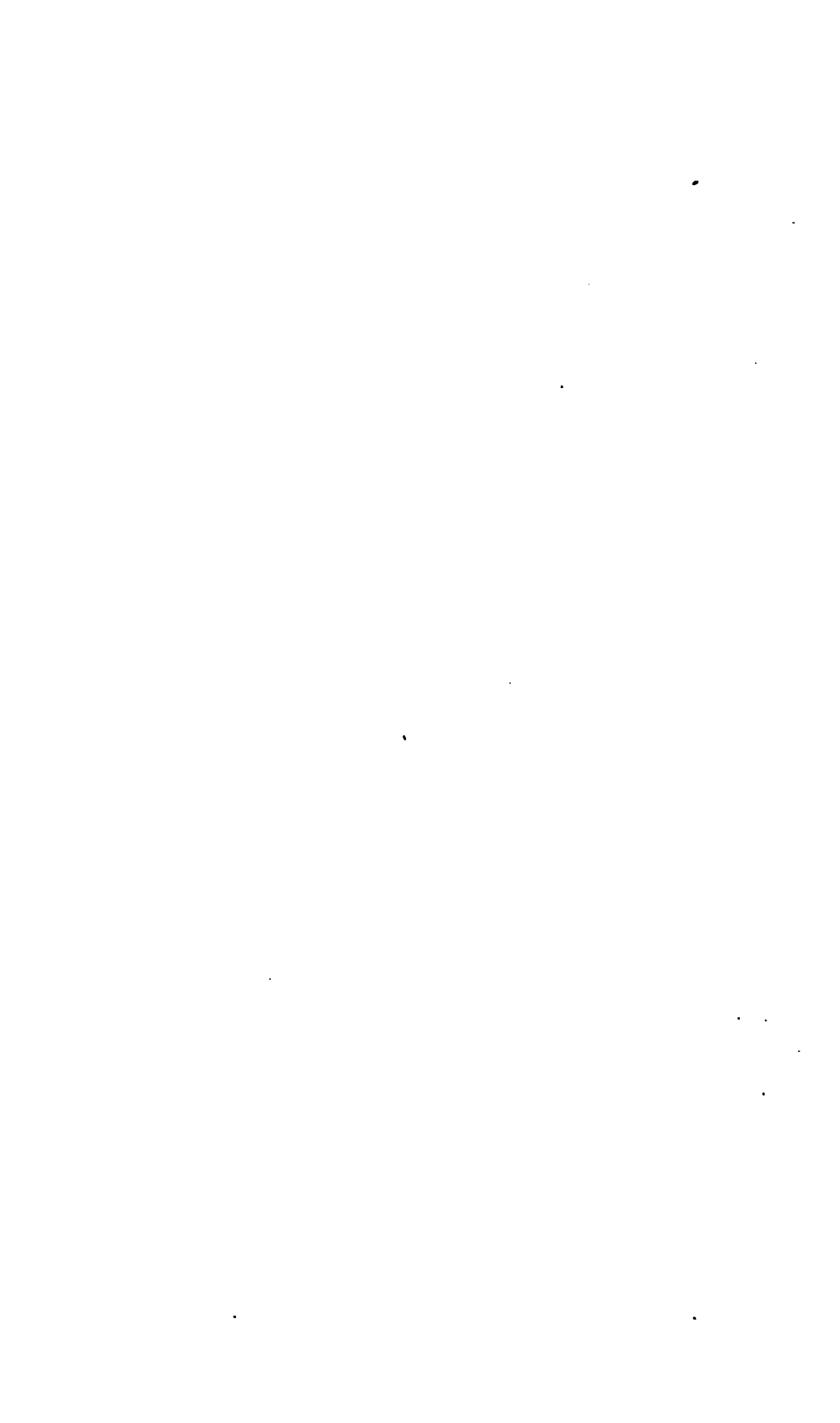
Gentlemen,—The following table shows the work done at the high service pumping station for the year ending December 31, 1899:—

Date, 1899.	No. of Days.	Pumping Time in Hours.	No. of Revolutions.	Gallons of Water Pumped	Pounds of Coal Burned.	Pounds of Ashes and Clinkers.
Jan. . . .	31	460	826,600	39,648,000	106,150	9,052
Feb. . . .	28	488	977,000	46,896,000	109,325	11,925
March . . .	31	434	870,000	41,760,000	109,275	9,660
Apr. . . .	30	496	956,000	45,888,000	109,625	11,500
May	31	726	1,488,000	71,424,000	138,325	19,675
June	30	720	1,354,500	65,016,000	119,200	18,200
July	31	738	1,295,500	62,184,000	121,060	14,590
Aug.	31	726	1,218,000	58,464,000	103,150	14,300
Sept.	30	716	1,557,500	74,760,000	154,000	16,150
Oct.	31	715	1,605,500	77,064,000	169,950	16,775
Nov.	30	635	1,469,000	70,512,000	171,125	16,950
Dec	31	680	1,403,000	67,344,000	182,350	21,875
Total . . .	365	7,526	15,020,000	720,960,000	1,565,525	180,642

The number of gallons pumped per revolution is figured at forty-eight, as in previous years, and the total pumpage is based on that quantity, this being slightly in excess of the estimate of 45.8 gallons made by the engineer of the Metropolitan Water Board.

The pump has practically been run continuously since May. There has been no break-down or interruption to the service, except temporarily in the month of October, when the feed pump was overhauled and new piston rods, plunger rings, and minor parts put in, and again in December, when the valve motion of the pumping engine was repaired. The boilers have been regularly inspected by the Hartford Steam Boiler Inspection & Insurance Co., and they, together with all their appurtenances, are reported in good order. The entire pumping plant is now in excellent condition.

SIDNEY E. HAYDEN, Engineer.



Annual Report

of the

★ Water Commissioner

of the

City of Somerville

Massachusetts

1900



VILA pub



ANNUAL REPORT
OF THE
WATER COMMISSIONER
OF THE
CITY OF SOMERVILLE

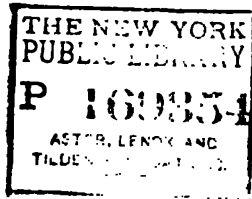
Compliments of

FRANK E. MERRILL,

Water Commissioner.



SOMERVILLE JOURNAL PRINT
1901



SOMERVILLE WATER WORKS.

SOMERVILLE, MIDDLESEX CO., MASSACHUSETTS.

Area of city, including land and water, about 4.22 square miles.

Population, 1900 (census), 61,643.

Entire population on line of pipe and supplied with water.

Water works owned by City of Somerville.

Construction commenced in 1868.

**Source of supply : Metropolitan system, taking water of the
Nashua river at Clinton, Mass.**

Mayor

HON. EDWARD GLINES.

Water Commissioner

FRANK E. MERRILL.

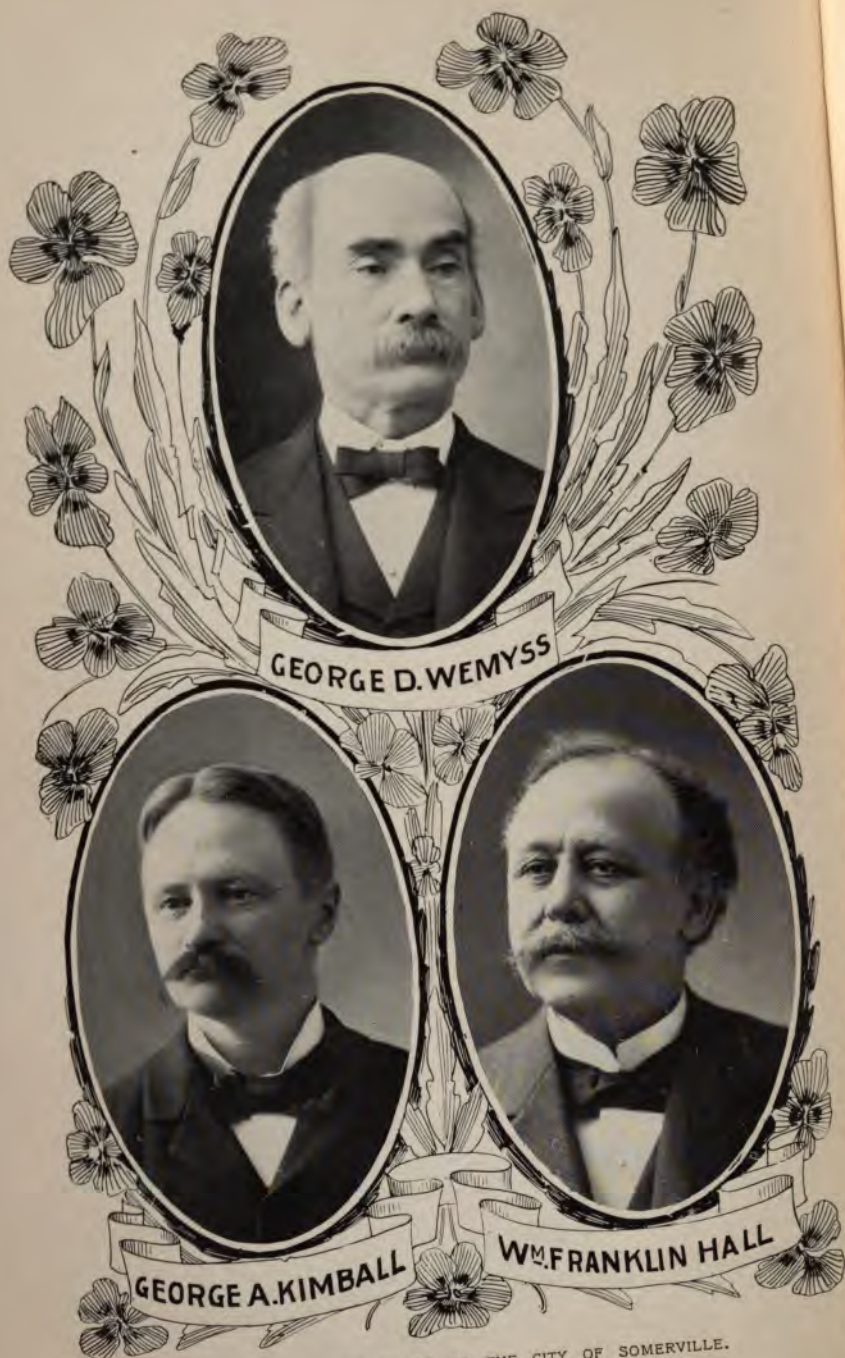
Office of the Water Department,

Room 10, City Hall.

Department Buildings and Yard,

Cedar street, near Broadway.

1847



THE LAST WATER BOARD OF THE CITY OF SOMERVILLE.

REPORT OF THE WATER COMMISSIONER.

OFFICE OF THE WATER COMMISSIONER, }
January 5, 1901. }

To His Honor, the Mayor, and the Board of Aldermen:—

I have the honor to present herewith the twenty-seventh annual report of the water department, and my first as Water Commissioner, covering the operations of the year ending December 31, 1900.

That portion of the new city charter relating to the water works is as follows: Section 41, Article 5: "The Water Department. This department shall be under the control of the Water Commissioner, who shall have charge of the construction, extension, alteration, repair, care, and management of the water works, and shall exercise all the powers and rights conferred and perform all the duties imposed by law upon the present Board of Water Commissioners of the City of Somerville, but shall not expend in any year, either from the income received from the water works under his charge or otherwise, more than the amount appropriated by the Board of Aldermen therefor."

Under the above quoted provisions of the city charter, the entire management of the water works was transferred on the 25th day of January to a single Water Commissioner, appointed by the Mayor and confirmed by the Board of Aldermen, who, by virtue of his office, also became a member of the Board of Public Works.

With the spirit of progress and improvement which is so characteristic of the present day, it may, at times, be deemed advisable to break away from old-established customs and methods of municipal administration for the purpose of reconstruction on more modern lines, but in the passing of the old and the advent of new conditions it seems always fitting that faithful and conscientious public service should be given recognition, especially when, as in the Board of Water Commissioners, the service is rendered without compensation. It is with a feeling of the propriety of things, as well as of pleasure, that the present Water Commissioner, who served his apprenticeship as clerk and superintendent under this last Board during its entire existence, can here record his tribute to the spirit of harmony and municipal patriotism which invariably characterized the meetings and actions of the Board.

George D. Wemyss, the president of the Board, was appointed March 11, 1891, and thus served the city on this Board for nearly nine years. Mr. Wemyss had previously represented his ward in the Common Council in the years 1886 and 1887, and

in the Board of Aldermen in 1888 and 1889, making thirteen years of nearly continuous public service. Mr. Wemyss was also a member of the new city charter commission.

George A. Kimball was also appointed March 11, 1891, with a previous service in the Board of Aldermen during the years 1889 and 1890, thus contributing eleven years of gratuitous service to the city. Mr. Kimball had also filled the position of City Engineer from 1876 to 1887.

William Franklin Hall was appointed February 8, 1893, and gave seven years of valuable service to the city on this Board. Mr. Hall was a member of the city charter commission, and has devoted his time liberally to other public matters.

It is highly gratifying to the Water Commissioner to be able to state that notwithstanding the new conditions which have presented themselves under the operations of the revised charter, the work of the department in all its details, has been carried on without friction, and that the high state of efficiency of the department existing under the former regime has been maintained.

Administration.

The system of administration is conducted along simple lines and remains practically the same as heretofore.

The duties of the Water Commissioner require an intimate knowledge of every detail of the work of his department; his responsibilities extend over the superintendence of the shop and street work, including the construction and renewal of street water mains, laying and maintenance of house service connections, installation and care of water meters, setting and inspection of fire hydrants, care of drinking fountains and troughs, and the construction and maintenance of all other fixtures connected with the water works.

He also has direct charge and control of the clerical and accounting system of the department, including the billing of over 10,000 water consumers' accounts, as well as the enforcement of the necessary processes leading up to the final payments of the water bills. The clerical work of the department also covers the recording of all labor performed, supplies furnished, and all other bookkeeping incidental to the expenditure of the appropriation accounts.

Closely allied to the above, and also under the charge of the Water Commissioner, is the inspection service of the department, including the leak and waste detection.

The permanent force necessary to accomplish the work thus briefly outlined consists of seventeen persons, as follows:—

Inspector	.	.	.	.	.	.	.	1
Office assistants	.	.	.	.	.	.	.	2
Maintenance force	.	.	.	.	.	.	.	14

Three of the above are veterans of the Civil war; one other has been connected with the works for thirty-eight years, having been employed in the construction of the old Mystic works; another has been employed on the works for over thirty years.

While the water bills are being made out and recorded the office force is temporarily increased by the addition of one or two assistants, and during the season of pipe laying the working force is increased by the employment of seventy-five to 100 temporary laborers, as needed.

The maximum laboring force during the year 1900 was in the month of June, and numbered 101 men.

Water Income.

Water bills have been issued as follows:—

10,155 "Annual" water bills, amounting to	\$160,049 69
1,754 "Additional" water bills, amounting to	9,840 70
675 "Metered" water bills, amounting to	48,204 61
	\$218,095 00

Abatements made on above charges for water charged to city departments and for other purposes	7,493 55

Leaving net amount of bills rendered	\$210,601 45
In addition to this, the account has credit for	12,766 12

This amount is produced as follows:—

Uncollected "Metered" water bills, due January 1, 1900	\$12,157 69
Uncollected "Annual" water bills	46 00
	\$12,203 69

Less abatements made on above charges:—

On "Metered" water bills	\$43 57
On "Annual" water bills	9 00
	52 57
	\$12,151 12

Amount collected in the year 1900:—

"Metered" water charges	\$12,114 12
"Annual" water charges	11 00

Amount uncollected December 31, 1900:—

"Annual" water charges	26 00
	\$12,151 12

Amounts carried forward		
	\$12,151 12	\$223,367 57

Amounts brought forward	\$12,151 12	\$223,367 57
Unexpended balance of appropriation for abatements	569 58	
Received from the Commonwealth of Massachusetts the difference between an amount due Somerville as its proportion for the sale of water by the Metropolitan Water Board in 1899 (\$95.80), and an amount overpaid to Somerville on its proportion of receipts of the Metropolitan Water Board from various sources in 1898 (\$50.38)	45 42	
	<u>\$12,766 12</u>	
		<u>\$223,367 57</u>

This amount was appropriated and applied under provisions of the appropriation order of the Board of Aldermen as follows:—

For water works purposes:—

Appropriation for Maintenance	\$45,000 00	
Appropriation for Water Works Extension	22,000 00	
Appropriation for Abatements	1,000 00	
Interest on Water Loan Bonds	9,502 50	
Maturing Water Loan Bonds	32,500 00	
Metropolitan Water Works Assessment	28,689 24	
	<u></u>	\$138,691 74

For other municipal purposes:—

Appropriation for Sewers, Maintenance	\$9,000 00	
Appropriation for Sewers, Construction	24,125 12	
Interest on Sewer Loan Bonds	6,240 00	
Maturing Sewer Loan Bonds	8,000 00	
Sewers Construction, Uncollected bills of 1899	26 00	
	<u></u>	47,391 12
Reduction of Funded Debt (balance)		37,284 71
		<u>\$223,367 57</u>

In accordance with an order passed by the Board of Aldermen March 22, 1900, no charge has been made during the year for water used for municipal purposes. The water income for the year 1900 is, therefore, reduced about \$12,000 on this account, the charges against the departments for water during the previous year being as follows:—

Street watering service	\$5,305 04
Fire hydrant service	4,172 00
Sewers flushing service	40 00

WATER COMMISSIONER.

7

Schoolhouses	1,815 34
Fire stations	393 45
City Hall and Annex	51 26
Public Library	15 00
Police Station	50 12
Highway Department buildings	76 72
Health Department buildings	77 59
Water Department buildings	28 00
Sewer Department buildings	10 00
City ledge, stone crusher	49 98
Fountains and troughs	45 00
Parks and cemetery	30 00
Other purposes	5 00

Department Receipts and Disbursements.

WATER MAINTENANCE ACCOUNT.

	Dr.	Cr.
Amount appropriated by City Council from water revenue		\$45,000 00
Collections from sundry accounts for labor and materials		23,814 50
Collections from other sources		86 00
Balance from water service assessments		27 11
Materials furnished service department	\$2,500 96	
Materials furnished construction department	14,530 35	
Labor and materials furnished sundry persons	6,855 39	
Labor and materials used in maintenance of the water works and renewals of pipe	40,832 89	
Transferred to Water Works Extension Account	3,000 00	
Unexpended balance of appropriation	708 02	
	<u>\$68,427 61</u>	<u>\$68,427 61</u>

WATER WORKS EXTENSION ACCOUNT.

	Dr.	Cr.
Amount appropriated by City Council from water revenue		\$22,000 00
Amount transferred from Water Maintenance Account		3,000 00
Collections from sundry accounts for labor and materials		55 20
Labor and materials used in extension of the water works	\$24,927 06	
Unexpended balance of appropriation	128 14	
	<u>\$25,055 20</u>	<u>\$25,055 20</u>

WATER SERVICE ACCOUNT.

	Dr.	Cr.
236 water service assessments		\$4,315 06
Labor and materials used in water service construction	\$4,287 95	
Balance transferred to water maintenance account	27 11	
	<u>\$4,315 06</u>	<u>\$4,315 06</u>

Cost of Water Works.

The total cost of the water works on December 31, 1899, as represented by the expenditures from appropria- tions for water works extension, was		\$741,557 57
Expended during the year 1900, on extension account		24,927 06
Total expenditures, December 31, 1900		<u>\$766,484 63</u>

Water Debt.

The indebtedness of the city on account of the water works on December 31, 1899, was \$239,500; this debt has been reduced during the year 1900 by the payments of bonds, maturing July 1 and October 1, to the amount of \$32,500; the indebtedness being now represented by bonds drawing interest as follows:—

\$197,000.00 at 4 per cent. per annum.
10,000.00 at $4\frac{1}{2}$ per cent. per annum.

Total . . .	<u>\$207,000.00</u>
-------------	---------------------

The following table, exhibiting the financial condition of the department from its first movements, is presented for reference and comparison:—

YEAR.	Water Loan Bonds Issued on Funded Debt Account.	Reduction of Funded Debt by Payments of Water Loan Bonds.	Expenditures for Construction of Water Works.	*Revenue from Water Works.
1869	\$80,000 00		\$92,203 27	\$911 39
1870	60,000 00		66,546 50	1,907 63
1871	60,000 00		43,648 66	3,151 30
1872	90,000 00	\$50,000 00	43,288 33	3,719 91
1873	60,000 00	20,000 00	27,691 26	5,084 97
1874	15,000 00		34,294 06	6,818 20
1875	20,000 00		13,375 76	9,652 37
1876	70,000 00	60,000 00	6,409 49	10,268 06
1877	10,000 00		13,845 74	10,735 90
1878	30,000 00	30,000 00	514 13	11,584 89
1879			791 56	12,341 60
1880	60,000 00	60,000 00		12,999 79
1881	40,000 00	40,000 00		14,697 37
1882	90,000 00	90,000 00		19,354 28
1883	7,500 00	7,500 00		19,661 67
1884	20,000 00	20,000 00		20,085 95
1885	20,000 00	20,000 00		21,542 28
1886	55,500 00	55,500 00		21,444 91
1887	9,000 00	9,000 00		42,650 57
1888	25,000 00	96,500 00	19,338 89	50,419 07
1889	90,000 00	19,000 00	81,117 43	51,470 91
1890	55,000 00	13,000 00	53,411 79	55,879 72
1891	10,000 00	†11,000 00	40,708 48	60,150 80
1892	28,000 00	28,000 00	34,863 17	77,640 91
1893		17,000 00	35,545 30	78,459 73
1894		18,000 00	28,375 67	83,401 30
1895		19,000 00	32,007 44	89,431 46
1896	‡12,000 00	18,500 00	16,631 83	95,719 69
1897		21,000 00	10,000 00	99,688 57
1898		22,000 00	26,970 22	a 200,735 03
1899		32,500 00	19,978 59	b 214,280 83
1900		32,500 00	24,927 06	c 222,322 15
	\$1,017,000 00	\$810,000 00	\$766,484 63	\$1,628,213 21

Total issue \$1,017,000 00

Total payments 810,000 00

Present water debt \$207,000 00

* From 1869 to 1886, inclusive, the basis of Somerville's water revenue was as follows: — The entire revenue from sale of water in Somerville was collected by the city of Boston and payments, were made to this city on the following sliding scale: —

On annual receipts up to \$20,000.00, Somerville's proportion was 15 per cent.

On annual receipts \$20,000.00 to \$30,000.00, Somerville's proportion was 20 per cent.

" " \$30,000.00 to \$40,000.00, " " 25 " "

" " \$40,000.00 to \$50,000.00, " " 30 " "

" " exceeding \$50,000.00, Somerville's proportion was 40 per cent.

In 1887 the contract was changed so that Somerville should receive 50 per cent. of the revenue, and this contract existed until January 1, 1898, on which date it was annulled, the revenue since that time being collected by the city of Somerville.

† In 1891 \$5 000.00 of Water Loan Bonds were cancelled, City Loan Bonds being substituted for them.

‡ Renewal.

a. Includes amount received from city of Boston for collections of metered water charges for 4th quarter of 1897 but does not include Somerville metered water charges for 4th quarter of 1898.

b. Includes collections of metered water charges for 4th quarter of 1898, but does not include charges for 4th quarter of 1899.

c. Includes collections of metered water charges for 4th quarter of 1899, also amount of charges for 4th quarter of 1900. Does not include credit for water supplied to city departments.

Inspection and Waste.

On the annual house to house canvass, from which is secured the data necessary in assessing the water charges, 10,538 inspections were made.

There has been discovered 905 defective water fixtures of the following kinds:—

Tanks and water closets		622
Faucets		235
Pipes		48

Notices covering these defects have been issued and proper attention has been given thereto by the owners or occupants of the premises.

It is undoubtedly a fact that a very large amount of water is wasted annually through defective plumbing in the houses of this city, in leaky faucets and ball-cocks, in water being allowed to run to prevent its freezing in the pipes, and in the excessive use of water through hand hose; small perhaps in any particular case, but immense in the aggregate. This unnecessary use of water throughout the district draws heavily upon the metropolitan water supply, and entails increased expenditures of money for the operation of the works and the extensions of the system necessary to meet the demands upon it.

Second only to the city of Boston, Somerville pays the largest amount toward the cost of the metropolitan system of water works, and anything which may reduce the present cost of operation and render unnecessary the further extension of the system will be of direct financial advantage to this city. This may largely be accomplished if property owners and tenants will, by a careful and constant inspection of the water fixtures in all premises under their charge, and in such other ways as may indicate themselves, co-operate with this department in reducing the amount of water thus wasted so that an abundant and unrestricted supply of water for legitimate domestic and sanitary purposes may be secured at a minimum cost.

Renewal of Street Mains.

As usual, the replacing of the old cement-lined water mains with substantial cast iron pipe has been an important feature of the year's work. But two bursts on the old cement water mains are to be recorded for the year; one cement-lined hydrant branch also gave way; in neither case was any damage caused to property. Such street mains as show any indication of weakness are generally relaid at once, thus reducing the liability of their bursting; in some cases it has been found expedient, in connection with other work, to remove some small cast-iron mains and replace them with pipe of larger diameter. Eleven thousand, eight hundred and ninety-six feet of old pipe has thus been abandoned

and removed during the year, and replaced with heavy iron pipe. There is now in the city approximately three miles of the cement-lined mains, a considerable portion of which will be replaced during the coming season with iron pipe.

The 16-inch pipe in Mansfield street and the 20-inch pipe in Washington street, both of iron, have given some trouble during the year by cracking.

There have been twelve joint leaks on pipes of various sizes, the greatest trouble appearing at the Webster-avenue crossing of the Boston & Maine railroad, owing, apparently, to the vibration of the earth caused by the passage of the frequent trains.

Extension of Street Mains.

A large amount of building has been done on Willow avenue and adjacent streets, requiring the laying of water pipes in an extensive territory hitherto unoccupied. There has been laid on construction account 14,084 feet of iron pipe of various sizes; of this, 11,784 feet have been laid in streets heretofore unsupplied with water, and 2,300 feet have been laid for improving the water circulation system and extending the high-pressure fire service.

The high-service districts of Winter hill and Central hill have been connected by a 12-inch pipe laid in Medford street from School street to a point near Walnut street, and a fire hydrant in Gilman square has been attached to this pipe, affording a fire pressure of about ninety-five pounds per square inch. In anticipation of the paving improvements in Davis square, a high-pressure fire and circulating pipe was laid in Highland avenue from Grove street, through the square into Holland street, and an eight-inch fire hydrant was attached thereto in the square in front of Medina building. This pipe is now connected with the low-service system at Grove street, but it is the intention to extend it in Highland avenue to Cedar street, and in Holland street to Gorham street, connecting with the high-service systems at those points and uniting, thereby, the Spring-hill and Clarendon-hill districts.

The water main was extended in College avenue to Professors' row, and important changes were made in the piping system at the latter point before the electric car tracks were laid, and numerous side connections and improvements were made in Broadway before the car tracks were placed therein. Pipes were also laid in Wigglesworth, Meacham, and Hall streets, in anticipation of improvements to be made by the highway department. The total main pipe mileage of the city is now approximately eighty-four miles, 1,827 feet.

Hydrants, Gates, Etc.

It is gratifying to be again able to report that, notwithstanding the severity of the winter season and other conditions with

which the department has to contend, no hydrant has failed to properly respond to its duty when called upon by the firemen. There is a city ordinance prohibiting the use of fire hydrants by any persons other than firemen in the discharge of their duties, without the license or authority of the Water Commissioner; this is a reasonable regulation in view of the importance of an efficient fire hydrant service, and should be respected. With the free use of the hydrant wrench by persons without authority, and therefore without knowledge of the Water Commissioner, it is almost impossible to place the responsibility for hydrants that may afterward be found in a defective condition.

All the hydrants have been carefully inspected during the year and repairs have been made wherever needed. A number of old-style hydrants have been removed and others of larger diameter and modern construction have been substituted therefor. A new hydrant has been set in Dover street, near Davis square, and in Somerville avenue, near Union square, for the further protection of the valuable interests in those localities. Twenty hydrants have been moved or abandoned, and forty-seven hydrants have been set, the net increase being twenty-seven, and the total number now in the city 897.

The hydrant which stood on Broadway, 138 feet west from Waterhouse street, has been sold to the Boston Elevated Railway Company, and removed, at their expense, to a point near their Clarendon-hill car house. The Boston & Maine railroad has set one hydrant in their yard at the old asylum grounds, which has been connected with our Washington-street main at the expense of the railroad company. A revised list, given in the appendix, of private fire hydrants supplied with water from the city of Somerville mains shows the number to be forty-two.

The number of main gates set during the year was 101; number removed on the line of the work, thirty-two; making a net increase of sixty-nine, and a total number of 1,203 in the city.

One 12-inch check valve was set in Professors' row, near Boston avenue, on the Clarendon-hill connection with the metropolitan water works high-service main. The high-service districts are now all provided with check valves, so that, in case of a failure or temporary shutting off of the metropolitan high-service mains, the low-pressure water will at once enter the pipes of our system.

Twenty-four blow-offs have been constructed on dead ends and at other suitable points for draining the pipes, removing sediment, etc. There are now in the system 108 blow-offs, and they are of valuable service in flushing the sewers as well as in the various requirements of the water works.

One waterpost for filling street-watering carts has been constructed, at the request of the highway department, on Vernon street, near Central street. The waterpost formerly standing on Broadway, 193 feet east from Willow avenue, was, by request, removed and set on Liberty avenue at Powder-House park.

Iron gate boxes have been set in place of old wooden ones wherever needed, and in Davis square and Cross street substantial brick gate chambers have been constructed on account of the paving improvements.

Drinking Fountains and Troughs.

No increase has been made in the number of troughs or fountains. Those in service have received necessary minor repairs, and the horse troughs have been regularly washed out and cleaned.

The large stone horse trough which had for years stood in the centre of Davis square was removed at the time the brick pavement was being laid. The question of resetting it was before the local public for some time, and arguments pro and con were expressed; it was finally decided, however, to leave the square unencumbered for the present, and a new combination trough and fountain was set nearby in Cutter square. The trough constructed at this point is of a style adopted by the water departments of a number of cities, and, while not especially ornamental in appearance, it has the recommendation of being very substantial and easily cleaned, as well as being comparatively inexpensive.

The combination trough in Gilman square was lowered about fifteen inches, to conform to the new grade established for the square.

Service Department.

The number of new service connections made during the year has been 238, this number being ten less than that of the previous year. One of the houses was formerly supplied by the city of Cambridge. In making these connections 8,987 feet of service pipe has been laid. The total mileage of service pipes is approximately sixty-five miles, 668 feet, and the number of house connections, 10,291.

The maintenance of the service system requires constant attention as the pipes grow older and become defective or their efficiency becomes impaired through accumulations of rust, sediment, or other causes. At noontime or midnight, in sunshine or storms, at all seasons of the year, the services of the men of this department are required, and when the warning comes that a water pipe is leaking they respond quickly to the summons and make the necessary repairs expeditiously and with as little inconvenience as possible to other water consumers, although at times, especially in the winter season, it becomes necessary to temporarily shut off the water from an entire street or section.

A large number of service boxes have been set, raised, and lowered to grade, and such other attention given them as has been necessary.

The service pipes in Cross street have largely been relaid with new and heavy material in anticipation of the contemplated paving improvements in this street, and the work will be completed early in the spring. The size of these service pipes has been generally increased, and they have been so extended in the sidewalk locations and reconnected with the houses as to allow the cutting off from the main of a large number of separate house connections, thereby reducing the liability of defective pipes in the street, and the necessity of breaking up the pavement for repairs.

During the relaying of the water mains in Mt. Pleasant, Mt. Vernon, Cutter, and Webster streets, the service pipes between the mains and the sidewalk cocks were also replaced with new and larger pipes, the old services being, in most cases, of small lead pipe, laid during the early days of the water works.

In West street and Clarendon avenue new water mains have been laid, and the small service pipes formerly unsatisfactorily supplying a number of houses have been re-arranged and so connected that the conditions have been greatly improved.

Meter Department.

The general policy of the department regarding water meters has been unchanged. The meters attached to the schoolhouses and other city buildings have all been removed, as the water is now furnished without charge for municipal purposes.

At the beginning of the year the number of meters in operation was	230
The number of operating meters added during the year was	23
Meters removed during the year	51
Total number of meters in operation December 31, 1900	202
Motor and elevator clocks in operation December 31, 1900	8

METERS IN USE DECEMBER 31, 1900.

	5/8"	3/4"	1"	1 1/2"	2"	3"	4"	6"	Total.
Empire . .	1								1
Crown . .	6	6	3	1	1	1	1	1	20
Gem . .							1		1
Hersey . .			7	1	2	3			13
Hersey Disc	1		5	1	2				9
Torrent . .								1	1
Trident . .	34	40	21	5	6	1	1		108
Union . .	6	7	9	2	5	1	2		32
Union Special		8	4						12
Lambert . .	5								5
Totals . .	53	61	49	10	16	6	5	2	202

The quantity of metered water consumed in 1900 was 43,995,448 cubic feet, or about 329,965,860 gallons; the average cost to the consumer being about eleven cents per 100 cubic feet, or 14.6 cents per 1,000 gallons.

Summary of Pipes and Fixtures.

Following is a general summary of the pipes and fixtures of the water system, December 31, 1900:—

Number of feet of main pipe (approximately)	445,347
Number of feet of service pipe (approximately)	343,868
Number of service connections (approximately)	10,291
Number of public fire hydrants	897
Number of private fire hydrants	42
Number of gates	1,203
Number of check valves	6
Number of meters	202
Number of waterposts	59
Number of blow-offs	108

The annual inventory of stock on hand, tools, and machinery, teams and stable equipment, pumping apparatus, and furniture shows a valuation of \$24,985.21; the land and buildings of the department are assessed at a valuation of \$32,000, and the general distribution system of the water works has an estimated valuation of \$800,000.

Pumping Plant.

The metropolitan high-service reservoir and pumping plant at Spot pond reached such a degree of completion that our local pumping plant was practically put out of commission on the 20th day of March. The Metropolitan Water Board continued, however, to employ our engineer, and kept the pump under their general orders until October 3, when notice was given by the board that they had no further need of the pumping service.

Efforts were made, early in the year, to sell the pump and boilers, hoping to obtain for them a price that would largely pay the cost of installing an electric or gas power pumping engine to be used for emergency purposes. No satisfactory offer having been received, however, the old outfit has been retained in service, and it seems best that it should be so continued for the present, as the expense of its maintenance is very light, no one being now required or employed as pumping engineer, and the amount of coal consumed being scarcely more than is required for heating purposes. The pumping equipment is kept in first-class condition, and a competent man, engaged in other work of the department, is always at hand to start the pump should the necessity arise.

Buildings and Grounds.

Under the new charter the care and maintenance of the buildings which were constructed by the water department, and are used for its purposes, was transferred to the Commissioner of Public Buildings.

The improvements in the grounds about the buildings, which were commenced in 1899, have been practically completed. The artificial pond proved a great attraction to the children living in the vicinity during the hot weather of the past summer. The privilege was given them of using the basin as a bathing pool on two afternoons of each week under proper restrictions, and on a certain Saturday 128 children were counted at one time enjoying themselves in the sun-warmed and cleansing water.

The machine shop of the department has been extended and improved by the addition of new machinery, and the efficiency of the shop increased thereby. We are now able to do the greater portion of the machine work which we have heretofore found it necessary to send out.

By cutting down the foundation piers of the pumping engine, the pump can readily be lowered into the basement, where it can be reconnected, and a valuable and much-needed space for meter work can thereby be gained in the old pump room.

Metropolitan Water Works.

The water supplied from this source has continued of excellent quality. At times the water, when first drawn from the faucet, has possessed a milky appearance, and some inquiry has been created as to its cause. This condition is produced by the passage of a small quantity of air into the pipes through the pumping machinery at Chestnut hill and is productive of no harm; the water soon clears away if allowed to stand.

The supply has been, as yet, unrestricted, but the Metropolitan Water Board has deemed it advisable to warn the representatives of the several water works of the district that the per capita consumption of water has so rapidly increased as to demand an immediate large outlay of money for a new conduit, and that some means must early be devised for restricting the waste now going on throughout the district. The consumption of water in gallons per inhabitant is stated to have increased from 73 in 1890 to 113 in 1900.

The following table of estimated assessments to be levied on Somerville, as this city's proportion of the cost and maintenance of the metropolitan water works, was compiled by the Metropolitan Water Board in 1898; the table also shows the actual assessments so far levied on this city.

		Estimated Assessment.	Actual Assessment.
1898		\$14,400 00	\$14,250 19
1899		21,200 00	20,975 58
1900		30,200 00	28,689 24



houses containing two or more families; the point aimed at in the consideration of the subject being to equalize the rates, with minor reference to its effect on the gross income. It was estimated, however, that the application of the schedule would cause a reduction in the water income of some six per cent., or approximately \$12,000 on dwelling houses, and about three per cent., or \$6,000, more on all other classes of property affected. Included in this revised schedule was, also, an item providing for a rate of \$3 for the use of hand hose in place of the old charge of \$5.

Under the provisions of the Metropolitan Water Act, any changes in water rates must receive the approval of the Mayor before becoming operative, and all minimum rates must receive, also, the approval of the Metropolitan Water Board. This revised schedule was presented to the Mayor for his approval on October 19, with the intention of having it go into effect January 1, 1901, if sanctioned. On December 8 the Mayor, however, after careful consideration of the matter, communicated his disapproval of the proposed schedule in all its items except that relating to the charge for the use of hand hose, his objection being based on the large reduction in revenue that would result from the contemplated readjustment, and on the fact that the maximum metropolitan assessment had not then been determined. The item of hose charge meeting with his approval, it was submitted to the Metropolitan Water Board and was approved by that body, with certain restrictions limiting the time and manner of the use of the hose, and with an intimation, also, that the rate might not be allowed to stand permanently.

Appendix.

Appended hereto are tables giving further information and details concerning the work of the department during the year; also locations of hydrants and other fixtures connected with the works.

FRANK E. MERRILL,
Water Commissioner.





WATER DEPARTMENT BUILDINGS AND POOL.

LOCATIONS OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC., SET IN 1900.

NAME OF STREET.	FROM	To	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.	DRINKING FOUNTAINS, TROUGHES.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.		
Allen st.	Hydrant		6"	10	6"	1	Mathews	2	6"	1				
Allen st.	Blow-off		6"	7	8"	1								
Ayer ave.	Gate	Con. with Frederick ave.	10"	720	10"	1	Mathews	1						
Bartlett st.	Main in Morrison ave.		6"	4	8"	1	Chapman	1						
Bay State ave.	Hydrant	Dead end	8"	30	8"	1								
Charlestown st.	Main in Broadway	Con. with Merriam st.	6"	501	6"	1								
Church st.	Con. with Allen st.		4"	12	4"	1	Bigelow	1	4"	1				
Chardon ave.	Blow-off	Con. with 6" iron pipe	4"	201										
College ave.	Main in Professors' row	Con. with hydrant near Cambridge line	12"	182	10"	1								
College ave.	Main in Professors' row	Con. with 12" iron pipe.	10"	305			Mathews	1	4"	1				
College ave.	Hydrant connection	Con. with Talbot ave.	4"	30	4"	1								
Crocker st.	Blow-off		8"	8	8"	1								
Crown st.	Con. with Crown st.	North line of Crown st.	6"	2	6"	1	Mathews	1	4"	1				
Cutter st.	Main in Porter st.	Con. with Crocker st.	6"	267	6"	1								
Cutter st.	Hydrant		4"	13	4"	1								
Cutter sq.	Blow-off		8"	96	6"	2	Chapman	1	6"	2				1
Davis sq.	Watering trough		8"	83	8"	1								
Davis sq.	Hydrant		8"	96	8"	1								
Day st.	Blow-off	5' S. from S. line of Elm st.	8"	45	8"	1								
Dover st.	Main in Holland st.	Dead end	6"	7			Mathews	1						
Dover st.	Main in Holland st.		4"	6			B. M.	1						
Dover st.	Hydrant connection		6"	233										
Electric pl.	Hydrant	Con. with 6" pipe opp. Westminster st.	6"	36										
Evergreen ave.	Con. with 2" pipe	Dead end	1"											
		Carried forward		3,446		15		10	6					1

Locations of New Mains Laid, Length and Size, Number of Gates, Hydrants, Etc., Set in 1900. — Continued.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.	DRINKING FOUNTAINS, TROUGH.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.		
Loring st.	Blow-off	Brought forward	2"	7,254	2"	32		13		11				1
Lovell st.	Main in Broadway	Main in Electric ave.	8"	462	6"	2	Mathews	1	2"	1				
Lowden ave.	Main in Broadway	Dead end	8"	30	8"	1	Mathews	1						
Madison st.	Hydrant		6"	7	6"	1								
Madison st.	Gate		6"	2	6"	1								
Madison st.	Blow-off		8"	12	8"	1								
Madison st.	Con. with Brooks st.	Con. with 6" iron pipe.	8"	165	8"	1				1				
Madison st.	Con. with Brooks st.	{ Con. with 12" pipe E. from B. & { M. bridge	12"	1,119	12"	2								
Medford st.	Con. with H. S. at School st.		12"	6	6"	2								
Medford st.	Blow-off		8"	23	6"	2	Mathews	1	6"	2				
Medford st.	Hydrant		6"	7	4"	1	Mathews	1	4"	1				
Montrose st.	Blow-off		6"	10	4"	1	Mathews	1	4"	1				
Montrose st.	Hydrant		6"	0	4"	1	Mathews	1	4"	1				
Mt. Pleasant st.	Blow-off		6"	40	6"	1	Mathews	1	6"	1				
Mt. Pleasant st.	Hydrant		6"	68	6"	1	Mathews	1	6"	1				
Mt. Vernon st.	Blow-off		6"	28	6"	1	Mathews	1	6"	1				
Mt. Vernon st.	Hydrant		6"	36	6"	1	Mathews	1	6"	1				
Pearl st.	Blow-off		8"	17	6"	1								
Pearl st.	Blow-off		8"	17	6"	1								
Pearson road	Main in Professors' row	Dead end	8"	12	8"	1	Chapman Mathews	1						
Pembroke st.	Hydrant		8"	6	6"	1	Mathews	1						
Pitman st.	Hydrant		8"	5	6"	1								
Pritchard ave.	Main in Morrison ave.	Dead end	8"	268	8"	1								
Professors' row	{ End of 8" iron pipe	Con. with Pearson road	8"	118	12"	1	Mathews	1			12"	1		
Professors' row	{ Main in College ave.	Con. with 12" pipe	12"	331	6"	1								
Professors' row	Hydrant connection		6"	27	6"	1								
Rogers ave.	Con. with iron pipe	Con. with Frederick ave.	6"	189	6"	1								
		Carried forward		10,265		51		22		20		1		1

Locations of New Mains Laid, Length and Size, Number of Gates, Hydrants, Etc., Set in 1900. — Concluded.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.	DRINKING FOUNTAINS, TROUGHS.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.		
		Brought forward		10,285		51		22		20		1		1
Rogers ave.	Main in Broadway	Dead end	10"	23	10"	1								
Rogers ave.	Main in Frederick ave.	Dead end	6"	294	6"	1	B. M.	1						
Sanborn's ct.	Main in Washington st.	Dead end	2"	175	4"	1	Mathews	1						
Somerville ave.	Hydrant	Main in Fanning ave.	6"	29	6"	2								
Spencer ave.	Main in Cedar st.	Hydrant connection	6"	770	6"		R. M.	1						
Talbot ave.	Main in Professors' row	Dead end	4"	6										
Tennyson st.	Main in Pembroke st.	Con. with 6" iron pipe	12"	15	6"	1								
Vernon st.	Water post	Hydrant	6"	83	2"	1	Bigelow	1						
Vine st.	Blow-off	Con. with 6" iron pipe	2"	33	2"	1								
Vine st.	Con. with Broadway	Con. with 6" iron pipe	4"	7	6"	1								
Warner st.	Con. with Asylum ave.	Con. with 6" iron pipe	6"	5	6"	1								
Washington st.	Gate	Con. with iron pipe	8"	36	12"	1								
Webster st.	Main in Otis st.	Con. with iron pipe	12"	76	8"	1								
Weasley st.	Hydrant connection	Con. with iron pipe	6"	85	6"	1								
Weasley st.	Hydrant	Con. with iron pipe	8"	7	6"	1	B. M.	1						
Weasley park	Blow-off	Main in Hawthorne st.	6"	36	4"	1	Mathews	1						
Weasley park	Blow-off	Con. with Howard st.	6"	254	6"	2	Mathews	1						
West st.	Main in Highland ave.	Con. with Howard st.	6"	24	6"	1	Mathews	1						
West st.	Blow-off	Con. with 8" pipe	6"	182	6"	1	Mathews	1						
Whipple st.	Main in Sycamore st.	Con. with 8" pipe	8"	327	8"	1								
Willoughby st.	Main in Broadway	Con. with Fosket st.	12"	1,287	12"	2	Mathews	1						
Willow ave.	Hydrant	Con. with 6" iron pipe	6"	9	4"	1								
Willow ave.	Blow-off	Con. with 6" iron pipe	4"	49	4"	1								
				14,084		71		31		24		1		1

Location and Length of Pipes Relaid, Gates and Hydrants Reset, 1900.—Continued.

NAME OF STREET.	FROM	To	PIPE LAID		GATES.			HYDRANTS.			WATER-POSTS.	
			Size.	Length.	Aband.	Reset.	Aband.		Reset.			
							No.	Size.		No.		Kind.
Liberty ave.	Waterpost.	Brought forward	2"	4,088	13	2"	11		8		6	1
Loring st.	6" iron pipe nr. Somerville ave.	Blow off	6"	35			1				1	
Madison st.	Con. with School st.	Con. with 6" iron pipe	6"	409	6"	6"	1		1	Coffin		
Marshall st.	Con. with Pearl st.	Easterly 117'	10"	8								
Meacham st.	88' east from Lester terrace	Con. with 12" pipe in Pearl st.	6"	117	6"	12"	1		1	Bigelow		
Medford st.	Con. with L. S. at School st.		6"	443	6"	12"	1		1	Chapman		
Medford st.	Gate		6"	5	12"	12"	1					
Montrose st.	Main in School st.	Con. with 6" pipe at Syc'more st.	8"	910	6"	6"	2		1	B. M.		
Mt. Pleasant st.	Con. with 6" pipe at Broadway	Con. with 6" pipe at Perkins st.	6"	7	6"	6"	2		1	B. M.		
Mt. Pleasant st.	Hydrant connection	27' N. from S. line of Perkins st.	4"	598	6"	6"	2		1	B. M.		
Mt. Vernon st.	27' N. from S. line of Broadway	22' S. from N. line of Perkins st.	10"	618	6"	10"	2					
Mt. Vernon st.	Hydrant connection		6"	6	6"	6"	2					
Packard ave.	Con. with Broadway		12"	38								
Packard ave.	{ N. line of Professors' row	Con. with 12" iron pipe	12"	609								
Packard ave.	{ Con. with 12" pipe at College ave.	Con. with 12" pipe near check valve	12"									
Pearl st.	Con. with Marshall st.	Con. with 12" pipe at Walnut st.	6"	735	6"	12"	2					
Pearl st.	Easterly side of Cross st.	Westerly to connection with 6" iron pipe	8"	8	8"	12"	2					
Pembroke st.	Main in Central st.	Con. with iron pipe	6"	58	6"	6"	1					
Perkins pl.	{ Main in Perkins st.	N. line of Perkins st.	4"	404	4"	4"	1		1			
Pitman st.	{ N. line of Perkins st.	Dead end	3"	24	4"	4"	1					
Professors' row	{ W. line of Beach st.	E. line of Spring st.	4"	135								
	Hydrant renewal		6"	379						Holyoke	1	1
		Carried forward	6"	17	29		27		14		11	1
				10,109								

Location and Length of Pipes Relaid, Gates and Hydrants Reset, 1900.—Concluded.

NAME OF STREET.	FROM	To	PIPE LAID.			GATES.			HYDRANTS.			WATER POSTS.		
			Size.		Length.	Aband.	Reset.	No.	Aband.	Kind.	No.	Reset.	Aband.	Reset.
			Aband.	Relaid.										
School st.	Con. with Montrose st.	Brought forward	4"	10"	10,109	29	27				11	1	1	
School st.	12' N. from S. line of Broadway	Con. with Madison st.	6"	10"	192	1	10"	1						
School st.	Con. with S. line of Broadway	Con. with 10" pipe at Oakland av	10"	10"	439	6"								
Somerville ave.	Hydrant renewal				11									
Trull st.	Hydrant renewal		6"	6"	2				B. M.	Corey	1			
Vine st.	Con. with Tyler st.	Dead end	6"	10"	147				Chapman	Chapman	1			
Webster st.	Con. with Glen st.	Con. with 6" cement pipe at Franklin st..	6"	8"	548	6"	8"	1	Holyoke	Holyoke	1			
Wesley Park.	Main in Bow st.	Blow-off	6"	6"	21	4"	6"	1	B. M.	B. M.	1			
West st.	Hydrant renewal		4"	4"	413				Bigelow	Holyoke	1			
			4"	6"	7				Holyoke		1			
					11,896	32		30			16	1	1	

Hydrants—Construction Account.

New hydrants have been set in the following locations :—

Allen street, 45 feet east from Somerville avenue, 6-inch Mathews.
 Allen street, 323 feet east from Somerville avenue, 6-inch Mathews.
 Ayer avenue, 264 feet north from Morrison avenue, 6-inch Mathews.
 Bartlett street, 223 feet north from Medford street, 6-inch Chapman.
 Clarendon avenue, near Cambridge line, 4-inch Bigelow.
 College avenue, 720 feet north from Broadway, 6-inch Mathews.
 Cutter street, 95 feet south from Broadway, 6-inch Mathews.
 Davis square, 45 feet east from Day street, 8-inch Chapman.
 Dover street, 22 feet south from Holland street, 6-inch Mathews.
 Eastman place, 279 feet south from Highland avenue, 4-inch Boston Machine.
 Granite street, 178 feet north from Somerville avenue, 6-inch Holyoke.
 Highland avenue, 36 feet west from West street, 6-inch Mathews.
 Liberty avenue, 12 feet north from Mallett street, 6-inch Mathews.
 Lovell street, 41 feet south from Electric avenue, 6-inch Mathews.
 Madison street, 103 feet west from School street, 6-inch Mathews.
 Montrose street, 287 feet east from Sycamore street, 6-inch Mathews.
 Mt. Pleasant street, 140 feet south from Broadway, 6-inch Mathews.
 Mt. Vernon street, 11 feet south from Lincoln avenue, 6-inch Mathews.
 Pearl street, 72 feet east from Bradley street, 6-inch Mathews.
 Pembroke street, 14 feet east from Tennyson street, six-inch Chapman.
 Pitman street, 180 feet west from Beech street, 6-inch Mathews.
 Professors' row, 39 feet east from College avenue, 6-inch Mathews.
 Rogers avenue, 88 feet south from Frederick avenue, 4-inch Boston Machine.
 Somerville avenue, 76 feet east from Hawkins street, 6-inch Mathews.
 Spencer avenue, 63 feet east from Fanning avenue, 4-inch Boston Machine.
 Vine street, 121 feet south from Tyler street, 4-inch Bigelow.
 Wesley street, 200 feet north from Pearl street, 4-inch Boston Machine.
 Wesley park, 16 feet north from Bow street, 6-inch Mathews.
 West street, 92 feet south from Highland avenue, 6-inch Mathews.
 Whipple street, 101 feet north from Highland avenue, 6-inch Mathews.
 Willow avenue, opposite Mallett street, 6-inch Mathews.

Hydrants—Renewal Account.

The following changes have been made in the kind and location of hydrants :—

Albion street, 4-inch Boston Machine hydrant, set 444 feet east from Cedar street, and 4-inch Boston Machine hydrant removed from 421 feet east from Cedar street.
 Allen street, 4-inch Bigelow hydrant, set 9 feet north from Charlestown street, and 4-inch Bigelow hydrant removed from same location.
 Bartlett street, 6-inch Holyoke hydrant, set 230 feet south from Broadway, and 6-inch Pratt and Cady hydrant removed from same location.
 College avenue, 6-inch Mathews hydrant, set 405 feet north from Broadway, and 6-inch Michigan hydrant removed from 700 feet north from Broadway.
 Crocker street, 6-inch Mathews hydrant, set 8 feet north from Crown street, and 6-inch Mathews hydrant removed from north corner of Crown street.
 Greene street, 6-inch Mathews hydrant, set 295 feet south from Summer street, and 6-inch Holyoke hydrant removed from same location.
 Loring street, 6-inch Coffin hydrant, set 276 feet north from Somerville avenue, and 6-inch Coffin hydrant removed from 273 feet north from Somerville avenue.

Medford street, 6-inch Mathews hydrant, set 171 feet north from Marshall street, and 6-inch Chapman hydrant removed from 184 feet north from Marshall street.

Montrose street, 6-inch Boston Machine hydrant, set 259 feet west from School street, and 6-inch Boston Machine hydrant removed from 399 feet west from School street.

Mt. Pleasant street, 4-inch Boston Machine hydrant, set 135 feet north from Perkins street, and 4-inch Boston Machine hydrant removed from 253 feet south from Broadway.

Professors' row, 6-inch Holyoke hydrant, set 158 feet west from Boston avenue, and 6-inch Holyoke hydrant removed from 277 feet east from College avenue.

Somerville avenue, 6-inch Corey hydrant, set 105 feet east from Carlton street, and 4-inch Boston Machine hydrant removed from same location.

Trull street, 6-inch Chapman hydrant, set 3 feet south from Medford street, and 8-inch Chapman hydrant removed from same location.

Webster street, 4-inch Holyoke hydrant, set opposite Cutter street, and 4-inch Holyoke hydrant removed from 10 feet west from Cutter street.

Wesley park, 4-inch Boston Machine hydrant, set 335 feet north from Bow street, and 4-inch Boston Machine hydrant removed from 245 feet north from Bow street.

West street, 6-inch Holyoke hydrant, set 140 feet north from Highland avenue, and 4-inch Bigelow hydrant removed from same location.

Broadway, 6-inch Holyoke hydrant removed from 138 feet west from Waterhouse street.

Broadway, 4-inch Boston Machine hydrant removed from 20 feet west from Farm lane.

Meacham street, 4-inch Bigelow hydrant removed from 200 feet east from Lester terrace.

West street, 6-inch Holyoke hydrant removed from 3 feet north from Highland avenue.

Recapitulation.

Number of public hydrants set in 1900	47	
“ “ private “ “ “ “	2	
Total number of hydrants set in 1900		49
Number of hydrants removed in 1900		20
Net increase in number of public hydrants, 1900	27	
“ “ “ “ “ private “ “	2	
Total net increase in number of hydrants, 1900		29
Total number of public hydrants in the city	897	
“ “ “ private hydrants, revised list	42	
Total number of all hydrants in the city January 1, 1901		939

Locations of Hydrants.

Adams street, 11 feet south from Broadway.

Adams street, 221 feet south from Broadway.

Adams street, 266 feet north from Medford street.

Adams street, 10 feet north from Medford street.

Adrian street, 93 feet east from Marion street.

Adrian street, 220 feet south from Joseph street.

Allen street, 9 feet north from Charlestown street.

Allen street, 45 feet east from Somerville avenue.

Allen street, 323 feet east from Somerville avenue.
Albion street, 74 feet west from Centre street.
Albion street, 396 feet west from Central street.
Albion street, 217 feet east from Lowell street.
Albion street, 444 feet east from Cedar street.
Aldersey street, 276 feet west from Walnut street.
Alpine street, 280 feet east from Cedar street.
Alpine street, 76 feet west from Princeton street.
Alpine street, 298 feet west from Lowell street.
Alston street, 212 feet east from Cross street.
Alston street, 10 feet west from Shawmut place.
Ames street, 123 feet west from Central street.
Appleton street, 3 feet east from Clifton street.
Appleton street, 41 feet west from Willow avenue.
Arlington street, 36 feet east from Hathorn street.
Arthur street, 29 feet south from Broadway.
Ash avenue, 300 feet north from Meacham street.
Ashland street, 268 feet south from Summer street.
Auburn avenue, 239 feet west from Cross street.
Auburn avenue, 481 feet west from Cross street.
Austin street, 81 feet south from Mystic avenue.
Austin street, 66 feet north from Benedict street.
Austin street, 2 feet north from Broadway.
Avon street, 233 feet east from Central street.
Avon street, 572 feet west from School street.
Ayer avenue, 264 feet north from Morrison avenue.
Banks street, 310 feet south from Summer street.
Bartlett street, 230 feet south from Broadway.
Bartlett street, 223 feet north from Medford street.
Bartlett street, 15 feet south from Ames street.
Bartlett street, 10 feet south from Robinson street.
Beacon street, 316 feet west from Greenwood terrace.
Beacon street, 10 feet east from Stanford terrace.
Beacon street, 46 feet west from Sacramento street.
Beacon street, 15 feet west from Kent street.
Beacon street, 4 feet west from Ivaloo street.
Beacon street, 68 feet east from Park street.
Beacon street, 18 feet east from Durham street.
Beacon street, 26 feet east from Washington street.
Beacon street, 90 feet east from Calvin street.
Beacon street, 194 feet east from Calvin street.
Beacon street, 28 feet west from Buckingham street.
Beacon street, 208 feet east from Buckingham street.
Beacon street, 6 feet east from Concord avenue.
Beech street, 4 feet south from Atherton street.
Beech street, 31 feet east from Spring street.
Belmont street, 206 feet north from Spring Hill terrace.
Belmont street, 241 feet north from Summer street.
Belmont street, 243 feet south from Summer street.
Belmont street, 10 feet north from Belmont place.
Belmont street, 222 feet south from Belmont place.
Belmont street, 185 feet north from Somerville avenue.
Benedict street, 33 feet east from Mystic street.
Bennett street, 166 feet east from Prospect street.
Benton road, 2 feet north from Cambria street.
Benton road, 28 feet south from Highland avenue.
Berkeley street, 8 feet east from Central street.
Berkeley street, 150 feet east from Hersey street.
Berkeley street, 28 feet west from School street.
Berkeley street, 212 feet west from Hersey street.
Billingham street, 126 feet north from William street.
Bolton street, 203 feet north from Houghton street.

Bolton street, 3 feet south from Oak street.
 Bonair street, 26 feet west from Cross street.
 Bonair street, 90 feet east from Autumn street.
 Bonair street, 12 feet east from Arthur street.
 Bonair street, 67 feet east from Dana street.
 Bonair street, opposite Melvin street.
 Bonair street, 117 feet east from Walnut street.
 Bond street, 63 feet south from Jaques street.
 Bonner avenue, 171 feet north from Washington street.
 Boston avenue, 110 feet south from bridge over Mystic river.
 Boston avenue, 492 feet north from Gove street.
 Boston street, 207 feet west from Bigelow street.
 Boston street, 87 feet east from Bigelow street.
 Boston street, 6 feet north from Munroe street.
 Bow street, 102 feet north from Warren avenue.
 Bow street, 23 feet west from Wesley park.
 Bow street, 25 feet east from Bow-street place.
 Bow street, 74 feet north from Walnut street.
 Bowdoin street, 65 feet north from Fremont avenue.
 Bradley street, 26 feet south from Veazie street.
 Brastow avenue, 202 feet east from Porter street.
 Brastow avenue, 115 feet west from Lowell street.
 Broadway, 50 feet east from Mt. Pleasant street.
 Broadway, 20 feet west from George street.
 Broadway, 21 feet west from Broadway place.
 Broadway, 83 feet east from Cutter street.
 Broadway, 7 feet east from Glen street.
 Broadway, 21 feet east from Rush street.
 Broadway, 15 feet west from Cross street.
 Broadway, 7 feet west from Autumn street.
 Broadway, 6 feet west from Montgomery avenue.
 Broadway, 33 feet west from Walnut street.
 Broadway, 4 feet east from Sargent avenue.
 Broadway, 3 feet west from Melvin street.
 Broadway, 157 feet west from Grant street.
 Broadway, 117 feet east from Marshall street.
 Broadway, 62 feet west from Marshall street.
 Broadway, 3 feet west from School street.
 Broadway, corner Thurston street.
 Broadway, 209 feet east from Central street.
 Broadway, 104 feet west from Norwood avenue.
 Broadway, 288 feet east from Cedar street.
 Broadway, opposite Cedar street.
 Broadway, 5 feet east from Wilson avenue.
 Broadway, 252 feet west from Wilson avenue.
 Broadway, 115 feet west from Rogers avenue.
 Broadway, 236 feet west from Liberty avenue.
 Broadway, 175 feet west from Elm street.
 Broadway, 6 feet west from Billingham street.
 Broadway, 9 feet west from Packard avenue.
 Broadway, 32 feet east from Westminster street.
 Broadway, 237 feet east from Endicott avenue.
 Broadway, 6 feet west from Endicott avenue.
 Broadway, 9 feet west from Garrison avenue.
 Broadway, 330 feet west from Waterhouse street.
 Broadway park, near the pond.
 Brook street, 18 feet west from Rush street.
 Browning road, 302 feet west from Sycamore street.
 Browning road, 136 feet east from Central street.
 Buckingham street, 2 feet south from Dimick street.
 Burnside avenue, 259 feet north from Elm street.
 Burnside avenue, 120 feet south from Summer street.

Cameron avenue, 166 feet south from Holland street.
Cameron avenue, opposite Mead street.
Cameron avenue, 26 feet south from Glendale avenue.
Campbell park, 258 feet west from Meacham street.
Cedar street, 226 feet south from Sartwell avenue.
Cedar street, 98 feet north from Sartwell avenue.
Cedar street, 61 feet north from Hall street.
Cedar street, 22 feet south from Highland avenue.
Cedar street, 12 feet north from Highland avenue.
Cedar street, 10 feet north from Albion street.
Cedar street, 124 feet south from Warwick street.
Cedar street, 50 feet north from Clyde street.
Cedar street, 24 feet south from Murdock street.
Cedar street, 270 feet south from Broadway.
Central street, 50 feet south from Broadway.
Central street, 6 feet north from Forster street.
Central street, 9 feet north from Vernon street.
Central street, 187 feet south from Vernon street.
Central street, 6 feet north from Albion street.
Central street, 1 foot south from Summer street.
Chandler street, 16 feet south from Broadway.
Chandler street, 206 feet north from Park avenue.
Chapel street, 14 feet east from Chandler street.
Charles street, 183 feet south from Washington street.
Charnwood road, 79 feet west from Gordonia road.
Chauncey avenue, 11 feet north from Broadway.
Chauncey avenue, 437 feet south from Mystic avenue.
Cherry street, 7 feet south from Sartwell avenue.
Cherry street, 254 feet north from Sartwell avenue.
Cherry street, 252 feet north from Summer street.
Cherry street, 26 feet south from Highland avenue.
Chester street, 15 feet north from Chester place.
Chestnut street, 480 feet south from Poplar street.
Chestnut street, 246 feet south from Poplar street.
Church street, 9 feet south from Summer street.
Church street, 300 feet south from Summer street.
Church street, 29 feet north from Somerville avenue.
Church street, 16 feet south from Somerville avenue.
City stables, east end of yard.
Claremon street, 255 feet south from Holland street.
Clarendon avenue, 253 feet south from Broadway.
Clarendon avenue, opposite house No. 66.
Clarendon avenue, near Cambridge line.
Clark street, 200 feet west from Newton street.
Clark street, 412 feet west from Newton street.
Clyde street, 250 feet east from Cedar street.
Clyde street, opposite Murdock street.
Columbia street, 3 feet south from Beach avenue.
Columbia street, 8 feet south from Columbia court.
College avenue, 405 feet north from Broadway.
College avenue, 720 feet north from Broadway.
Columbus avenue, 150 feet east from Bonner avenue.
Columbus avenue, 118 feet west from Bonner avenue.
Columbus avenue, 35 feet west from Stone avenue.
Columbus avenue, 8 feet east from Walnut street.
Concord avenue, 154 feet west from Prospect street.
Concord avenue, 76 feet east from Concord square.
Concord avenue, on east line of Knapp school.
Concord avenue, 313 feet east from Springfield street.
Concord avenue, 24 feet east from Springfield street.
Concord avenue, 7 feet east from Marion street.
Concord avenue, 6 feet south from Hammond street.

Concord avenue, 20 feet east from Wyatt street.
Conwell avenue, 20 feet west from Curtis street.
Conwell avenue, 460 feet west from Curtis street.
Conwell street, 6 feet south from Highland avenue.
Conwell street, 3 feet north from Francis street.
Cook street, 74 feet north from Wyatt street.
Cooney street, 98 feet north from Line street.
Cottage avenue, 206 feet west from Russell street.
Craigie street, 216 feet south from Summer street.
Craigie street, 232 feet north from Kimball street.
Craigie street, 77 feet south from Kimball street.
Craigie street, 126 feet north from Somerville avenue.
Crescent street, 80 feet south from Hadley place.
Crocker street, 4 feet south from Highland avenue.
Crocker street, 8 feet north from Crown street.
Cross street, north corner Otis street.
Cross street, 6 feet north from Pearl street.
Cross street, 32 feet north from Cross-street place.
Cross street, 62 feet north from Flint street.
Cross street, 16 feet north from Gilman street.
Cross street, 13 feet south from Auburn avenue.
Cross street, 39 feet north from Alston street.
Curtis avenue, 206 feet west from Curtis street.
Curtis street, 6 feet north from Broadway.
Curtis street, 3 feet south from Electric avenue.
Curtis street, 137 feet north from Ware street.
Curtis street, 3 feet south from Raymond avenue.
Curtis street, 34 feet south from Professors' row.
Curtis street, 225 feet north from Professors' row.
Cutter avenue, 11 feet south from Highland avenue.
Cutter square, 95 feet west from Cutter avenue.
Cutter street, 95 feet south from Broadway.
Cutter street, 444 feet south from Broadway.
Dane avenue, 162 feet west from Leland street.
Dane avenue, 169 feet east from Dane street.
Dane street, 9 feet north from Tyler street.
Dane street, 260 feet south from Skehan street.
Dane street, 55 feet north from Skehan street.
Dartmouth street, 288 feet south from Broadway.
Dartmouth street, 53 feet south from Evergreen avenue.
Dartmouth street, 171 feet north from Medford street.
Davis square, 45 feet east from Day street.
Day street, 10 feet south from Elm street.
Day street, 195 feet south from Herbert street.
Day street, 4 feet north from Orchard street.
Dell street, 255 feet west from Glen street.
Delaware street, 246 feet east from Aldrich street.
Derby street, 400 feet east from Temple street.
Dickinson street, 20 feet east from Beacon street.
Dover street, 22 feet south from Holland street.
Dover street, 203 feet south from Elm street.
Dover street, 312 feet north from Orchard street.
Dover street, 3 feet north from Orchard street.
Durham street, opposite Skehan street.
Durham street, 5 feet west from Hanson street.
Eastman place, 279 feet south from Highland avenue.
Edmands street, 15 feet south from Broadway.
Ellsworth street, 7 feet west from Rush street.
Elm street, 59 feet west from Craigie street.
Elm street, 17 feet west from Porter street.
Elm street, 28 feet east from Linden avenue.
Elm street, 11 feet east from Mossland street.

Elm street, 9 feet west from Cedar street.
Elm street, 153 feet east from Cherry street.
Elm street, 110 feet west from Cherry street.
Elm street, 14 feet east from Burnside avenue.
Elm street, 104 feet east from Willow avenue.
Elm street, 20 feet east from St. James avenue.
Elm street, 9 feet west from Elston street.
Elm street, 90 feet west from Windom street.
Elm street, 25 feet west from Russell street.
Elm street, 11 feet west from Grove street.
Elm street, 82 feet west from Chester street.
Elm street, 12 feet north from Winter street.
Elm street, 6 feet south from Morrison street.
Elm street, 8 feet south from Hall avenue.
Elm street, 53 feet west from Francesca avenue.
Elm street, opposite Kenwood street.
Elm street, 100 feet west from Broadway.
Elmwood street, 9 feet south from Holland street.
Elmwood street, 300 feet north from Harrison street.
Eliot street, 3 feet east from Park street.
Endicott avenue, 422 feet south from Broadway.
Evergreen avenue, 8 feet east from School street.
Everett avenue, 5 feet west from Cross street.
Everett avenue, 9 feet east from Dana street.
Everett avenue, 449 feet west from Cross street.
Everett street, opposite Emerson street.
Fairlee street, 134 feet west from Cherry street.
Fairmount avenue, 280 feet west from Curtis street.
Fairmount avenue, opposite Watson street.
Farragut avenue, 258 feet south from Broadway.
Farragut avenue, 537 feet south from Broadway.
Fenwick street, 40 feet north from Broadway.
Fiske avenue, 120 feet east from Hinckley street.
Fitchburg street, 395 feet east from Linwood street.
Flint street, 18 feet east from Flint avenue.
Flint street, 59 feet east from Cross street.
Flint street, 30 feet west from Franklin street.
Florence street, 206 feet south from Perkins street.
Florence street, 7 feet south from Pearl street.
Florence street, 453 feet north from Washington street.
Forster street, opposite Tennyson street.
Fosket street, 6 feet west from Bay State avenue.
Francesca avenue, 305 feet east from Elm street.
Francesca avenue, 7 feet west from Liberty avenue.
Franklin street, 14 feet north from Arlington street.
Franklin street, 76 feet south from Webster street.
Franklin street, 156 feet south from Pearl street.
Franklin street, 80 feet south from Oliver street.
Franklin street, 87 feet south from Palmer avenue.
Franklin street, 29 feet north from Washington street.
Fremont street, 82 feet north from Main street.
Fremont street, 343 feet north from Main street.
Fremont street, opposite Meacham street.
Fremont street, 287 feet north from Meacham street.
Fremont street, 25 feet north from East Albion street.
Frost avenue, 75 feet east from Sherman street.
Fountain avenue, 280 feet west from Glen street.
Garden court, 357 feet south from Somerville avenue.
Garfield avenue, 24 feet south from Mystic avenue.
Garrison avenue, 235 feet south from Broadway.
Gibbens street, 202 feet west from Central street.
Gibbens street, 129 feet west from Benton road.

Gilman square, opposite Marshall street.
 Gilman street, 103 feet east from Walnut street.
 Gilman street, 143 feet east from Jasper street.
 Gilman street, 8 feet west from Aldrich street.
 Gilman street, 176 feet east from Aldrich street.
 Gilman street, 295 feet west from Cross street.
 Glass-house court, 360 feet west from Water street.
 Glen street, 147 feet south from Broadway.
 Glen street, 8 feet north from Brook street.
 Glen street, 6 feet north from Webster street.
 Glen street, 1 foot north from Flint street.
 Glen street, 11 feet north from Fountain avenue.
 Gorham street, 310 feet south from Holland street.
 Gorham street, 67 feet north from Howard street.
 Grand View avenue, 286 feet east from Vinal avenue.
 Granite street, 178 feet north from Somerville avenue.
 Grant street, 2 feet north from Derby street.
 Greene street, 295 feet south from Summer street.
 Greenville street, 148 feet north from Boston street.
 Greenville street, 33 feet north from Munroe street.
 Grove street, 163 feet south from Highland avenue.
 Hall avenue, 310 feet east from Elm street.
 Hall avenue, 306 feet west from Liberty avenue.
 Hall avenue, 9 feet west from Liberty avenue.
 Hall street, 269 feet west from Cedar street.
 Hamlet street, 32 feet south from Highland avenue.
 Hammond street, 30 feet west from Dickinson street.
 Hancock street, 258 feet south from Summer street.
 Hanson street, 12 feet south from Village street.
 Hanson street, 9 feet south from Nevada avenue.
 Hanson street, 6 feet south from Skehan street.
 Harvard street, 13 feet north from Beech street.
 Harvard street, 23 feet north from Harvard place.
 Harrison street, 77 feet east from Kent street.
 Harrison street (Ward 7), 4 feet east from Elmwood street.
 Hawkins street, 50 feet north from Lake street.
 Hawthorne street, 8 feet east from Cutter avenue.
 Hawthorne street, 209 feet east from West street.
 Heath street, 3 feet west from Temple street.
 Heath street, 308 feet west from West street.
 Heath street, 100 feet west from Bond street.
 Heath street, 4 feet east from Fenwick street.
 Heath street, 5 feet east from Moreland street.
 Henderson street, 107 feet north from Wilton street.
 Herbert street, 163 feet west from Chester street.
 Highland avenue, 28 feet west from Hamlet street.
 Highland avenue, 5 feet east from Walnut street.
 Highland avenue, 262 feet west from Walnut street.
 Highland avenue, 80 feet east from Vinal avenue.
 Highland avenue, 41 feet west from Putnam street.
 Highland avenue, 75 feet west from Prescott street.
 Highland avenue, 114 feet west from School street.
 Highland avenue, 410 feet west from School street.
 Highland avenue, 112 feet west from Trull lane.
 Highland avenue, 171 feet east from Central street.
 Highland avenue, 214 feet east from Spring Hill terrace.
 Highland avenue, 23 feet west from Spring Hill terrace.
 Highland avenue, 20 feet west from Belmont street.
 Highland avenue, 4 feet east from Tower street.
 Highland avenue, 2 feet east from Porter street.
 Highland avenue, 212 feet east from Cedar street.
 Highland avenue, 35 feet east from Fanning avenue.

Highland avenue, 43 feet west from Lesley avenue.
Highland avenue, 3 feet west from Willow avenue.
Highland avenue, 36 feet west from West street.
Highland avenue, 6 feet west from Grove street.
Highland avenue, 218 feet west from Grove street.
Highland avenue, 64 feet east from Elm street.
Hinckley street, 106 feet south from Broadway.
Holland street, 39 feet west from Dover street.
Holland street, 8 feet west from B. & M. R. R. crossing.
Holland street, 5 feet east from Jay street.
Holland street, 3 feet east from Paulina street.
Holland street, 94 feet east from Clarendon street.
Homer square, 200 feet west from Bonner avenue.
Houghton street, 82 feet west from Prospect street.
Houghton street, 3 feet west from Bolton street.
Houghton street, 10 feet west from Oak street.
Hudson street, 12 feet east from Waldo street.
Hudson street, opposite Benton road.
Hudson street, 294 feet east from Lowell street.
Hudson street, 362 feet west from Lowell street.
Hudson street, 675 feet west from Lowell street.
Ibbetson street, 256 feet north from Somerville avenue.
Ibbetson street, 6 feet south from Kimball street.
Irving street, 6 feet south from Broadway.
Irving street, 285 feet south from Broadway.
Irving street, 542 feet north from Holland street.
Irving street, 190 feet north from Holland street.
James street, 100 feet north from Pearl street.
Jaques street, 10 feet west from Chauncey avenue.
Jaques street, 8 feet west from Grant street.
Jaques street, 360 feet east from Temple street.
Jaques street, 185 feet west from Temple street.
Jaques street, 410 feet east from Bond street.
Jasper street, 5 feet south from Virginia street.
Jay street, 82 feet north from Howard street.
Jenny Lind avenue, 224 feet south from Broadway.
Jenny Lind avenue, 18 feet north from Vernon street.
Jenny Lind avenue, 320 feet north from Vernon street.
Jenny Lind avenue, 467 feet north from Vernon street.
Joseph street, 100 feet west from Adrian street.
Josephine avenue, 397 feet north from Morrison avenue.
Joy street, 34 feet south from Washington street.
Joy street, 502 feet south from Washington street.
Joy street, 271 feet north from Poplar street.
Kensington avenue, 6 feet north from Broadway.
Kent court, 205 feet west from Kent street.
Kidder avenue, 346 feet east from Elm street.
Kingman court, 282 feet south from Washington street.
Kingston street, 95 feet west from Thorndike street.
Knowlton street, opposite Morton street.
Lake street, 220 feet west from Hawkins street.
Lake street, 4 feet east from Carlton street.
Laurel street, 50 feet north from Greene street.
Laurel street, 8 feet north from Park place.
Lawrence street, 9 feet south from Richardson street.
Leland street, 14 feet south from Dane avenue.
Lexington avenue, 3 feet west from Fanning avenue.
Liberty avenue, 3 feet north from Kidder avenue.
Liberty avenue, 12 feet north from Mallett street.
Lincoln street, 174 feet north from Perkins street.
Lincoln avenue, 206 feet west from Mt. Vernon street.
Linden street, 31 feet north from Charlestown street.

Linden street, 237 feet south from Somerville avenue.
 Linden avenue, 118 feet south from Gilson terrace.
 Linden avenue, 255 feet south from Olive avenue.
 Linden avenue, 30 feet north from Olive avenue.
 Line street, 272 feet west from Cooney street.
 Line street, 100 feet west from Smith avenue.
 Linwood street, 385 feet south from Washington street.
 Linwood street, 48 feet south from Lamson court.
 Linwood street, 52 feet south from London street.
 Linwood street, 2 feet south from Linwood place.
 London street, 383 feet east from Linwood street.
 Loring street, 276 feet north from Somerville avenue.
 Lovell street, 41 feet south from Electric avenue.
 Lowell street, 1 foot north from Fiske avenue.
 Lowell street, 183 feet south from Richardson street.
 Lowell street, opposite Vernon street.
 Lowell street, 3 feet south from Princeton street.
 Lowell street, 163 feet south from Highland avenue.
 Lowell street, 53 feet north from Crown street.
 Lowell street, 16 feet north from Kimball street.
 Madison street, 103 feet west from School street.
 Madison street, 467 feet west from School street.
 Main street, junction with Broadway.
 Main street, 112 feet west from Mt. Vernon avenue.
 Main street, west corner of Moreland street.
 Mansfield street, 190 feet north from Somerville avenue.
 Mansfield street, 189 feet south from Washington street.
 Maple avenue, 294 feet east from School street.
 Maple street, 7 feet south from Jackson street.
 Maple street, 87 feet north from Poplar street.
 Marion street, 31 feet south from Adrian street.
 Marshall street, 80 feet south from Stickney avenue.
 Marshall street, 30 feet north from Stickney avenue.
 Marshall street, opposite Howe street.
 Marshall street, 5 feet north from Evergreen avenue.
 Marshall street, 104 feet south from Mortimer place.
 Marshall street, 109 feet north from Oakland avenue.
 Malloy court, 16 feet south from Somerville avenue.
 Meacham street, 4 feet north from Orchard street.
 Meacham street, 97 feet north from Kingston street.
 Meacham street, 14 feet west from Moreland street.
 Mead street, 48 feet east from Claremont street.
 Medford street, 50 feet north from Hennessey court.
 Medford street, 56 feet north from Lowell street.
 Medford street, 14 feet north from Jenny Lind avenue.
 Medford street, 16 feet south from Bartlett street.
 Medford street, 6 feet north from Central street.
 Medford street, 19 feet south from Sycamore street.
 Medford street, 15 feet south from Lee street.
 Medford street, 46 feet south from Thurston street.
 Medford street, 31 feet south from Dartmouth street.
 Medford street, 5 feet north from School street.
 Medford street, 171 feet north from Marshall street.
 Medford street, 266 feet north from Walnut street.
 Medford street, 17 feet south from Walnut street.
 Medford street, 291 feet south from Walnut street.
 Medford street, 8 feet south from Greenville street.
 Medford street, 13 feet north from Prospect-hill avenue.
 Medford street, 240 feet south from Prospect-hill avenue.
 Medford street, opposite Chester avenue.
 Medford street, 216 feet south from Washington street.
 Medford street, 69 feet north from Jackson street.

Porter street, 1 foot north from Mountain avenue.
Porter street, 282 feet south from Summer street.
Porter street, 24 feet north from Williams court.
Porter street, 8 feet north from Parker place.
Professors' row, 39 feet east from College avenue.
Professors' row, 158 feet west from Boston avenue.
Professors' row, 126 feet west from College avenue.
Professors' row, 291 feet west from College avenue.
Professors' row, 548 feet east from Packard avenue.
Professors' row, 156 feet east from Packard avenue.
Professors' row, 3 feet west from Packard avenue.
Professors' row, 296 feet west from Packard avenue.
Professors' row, 113 feet east from Curtis street.
Prospect Hill avenue, 10 feet north from Munroe street.
Prospect street, 135 feet north from Bennett street.
Prospect street, 35 feet south from Concord avenue.
Prospect street, 185 feet south from Oak street.
Prospect street, 403 feet south from Oak street.
Prospect street, 63 feet north from Houghton street.
Putnam street, 116 feet south from Highland avenue.
Putnam street, 420 feet south from Highland avenue.
Putnam street, 612 feet north from Summer street.
Putnam street, 308 feet north from Summer street.
Quincy street, 91 feet north from Somerville avenue.
Quincy street, 381 feet north from Somerville avenue.
Quincy street, 26 feet south from Summer street.
Raymond avenue, 728 feet west from Curtis street.
Richardson street, 11 feet west from Nashua street.
Richdale avenue, opposite Thurston street.
Robinson street, 325 feet west from Central street.
Rogers avenue, 88 feet south from Frederick avenue.
Rogers avenue, 255 feet north from Morrison avenue.
Rossmore street, 244 feet south from Washington street.
Rush street, 84 feet south from Pearl street.
Rush street, 11 feet north from Pearl street.
Rush street, 128 feet north from Brook street.
Sacramento street, 5 feet south from Miller street.
Sanborn avenue, 55 feet east from Walnut street.
Sargent avenue, 474 feet south from Broadway.
Sargent avenue, 361 feet west from Walnut street.
Sargent avenue, 95 feet west from Walnut street.
School street, 31 feet south from Oakland avenue.
School street, 100 feet south from Maple avenue.
School street, 6 feet south from Montrose street.
School street, 128 feet north from Highland avenue.
School street, 88 feet north from Oxford street.
School street, 15 feet north from Avon street.
School street, 100 feet south from Summer street.
School street, 93 feet south from Preston street.
School street, 61 feet north from Knapp street.
Sewall street, 311 feet west from Grant street.
Shawmut street, 9 feet west from Washington street.
Shawmut street, 153 feet west from Shawmut place.
Simpson avenue, 272 feet south from Broadway.
Simpson avenue, 142 feet north from Holland street.
Skehan street, 110 feet east from Hanson street.
Somerville avenue, 188 feet west from Mossland street.
Somerville avenue, 308 feet east from Mossland street.
Somerville avenue, 600 feet east from Mossland street.
Somerville avenue, 116 feet west from Elm street.
Somerville avenue, 9 feet east from Ibbetson street.
Somerville avenue, 77 feet east from Belmont street.

Somerville avenue, 14 feet west from Garden court.
 Somerville avenue, 133 feet west from Kent street.
 Somerville avenue, 13 feet west from Beech street.
 Somerville avenue, 11 feet east from Central street.
 Somerville avenue, 15 feet west from Laurel street.
 Somerville avenue, 86 feet west from Granite street.
 Somerville avenue, 38 feet west from Sherman street.
 Somerville avenue, 76 feet east from Hawkins street.
 Somerville avenue, 185 feet west from Hawkins street.
 Somerville avenue, 88 feet west from Quincy street.
 Somerville avenue, 105 feet east from Carlton street.
 Somerville avenue, 90 feet west from Prospect street.
 Somerville avenue, 28 feet west from Linden street.
 Somerville avenue, 9 feet east from Mystic street.
 Somerville avenue, 94 feet west from Mansfield street.
 Somerville avenue, 126 feet east from Medford street.
 Somerville avenue, 88 feet east from Poplar street.
 Somerville avenue, 464 feet east from Poplar street.
 Somerville avenue, 153 feet west from Linwood street.
 Somerville avenue, 20 feet east from F. R. R. crossing.
 Somerville avenue, 262 feet west from Franklin court.
 Somerville avenue, 23 feet east from Franklin court.
 Somerville avenue, 100 feet west from Cambridge line.
 South street, 97 feet west from Bedford street.
 South street, 2 feet east from Harding street.
 South street, 25 feet west from Hunting street.
 South street, 80 feet west from Willow place.
 Spencer avenue, 63 feet east from Fanning avenue.
 Spring street, 10 feet south from Pitman street.
 Spring street, 184 feet north from Beech street.
 Springfield street, 140 feet south from Concord avenue.
 Springfield street, 2 feet south from Dickinson street.
 Springfield street, 177 feet south from Houghton street.
 Spring Hill terrace, 333 feet south from Highland avenue.
 Stickney avenue, 212 feet west from Marshall street.
 Stone avenue, 120 feet north from Union square.
 Stone avenue, 275 feet south from Columbus avenue.
 Summer street, 148 feet east from Cutter avenue.
 Summer street, opposite Elston street.
 Summer street, west corner Gordonia road.
 Summer street, 34 feet east from Banks street.
 Summer street, 6 feet east from Cherry street.
 Summer street, 6 feet east from Cedar street.
 Summer street, 24 feet east from Linden avenue.
 Summer street, opposite Craigie street.
 Summer street, 35 feet east from Porter street.
 Summer street, 4 feet east from Lowell street.
 Summer street, 3 feet east from Belmont street.
 Summer street, 1 foot west from Spring street.
 Summer street, 53 feet west from Harvard street.
 Summer street, 215 feet east from Harvard street.
 Summer street, 59 feet east from Central street.
 Summer street, 19 feet west from Laurel street.
 Summer street, 52 feet west from Preston street.
 Summer street, 191 feet west from School street.
 Summer street, 8 feet east from School street.
 Summer street, opposite Putnam street.
 Summer street, 6 feet west from Vinal avenue.
 Summit avenue, 231 feet east from Vinal avenue.
 Sunnyside avenue, 99 feet west from Wigglesworth street.
 Sycamore street, 18 feet south from Broadway.
 Sycamore street, 62 feet south from Browning road.

Sycamore street, 1 foot south from Forster street.
Sycamore street, 200 feet north from Medford street.
Sycamore street, 174 feet south from Medford street.
Sydney street, 418 feet east from Temple street.
Talbot avenue, 488 feet east from Packard avenue.
Temple street, 4 feet north from Broadway.
Temple street, 123 feet south from Sewall street.
Temple street, 11 feet north from Jaques street.
Temple street, 6 feet south from Derby street.
Temple street, 5 feet south from Sydney street.
Tenney court, 306 feet north from Mystic avenue.
Tennyson street, 4 feet south from Medford street.
Tennynson street, 117 feet north from Pembroke street.
Thorndike street, 4 feet south from Holland street.
Thorndike street, 82 feet north from Kingston street.
Thorpe place, 269 feet south from Highland avenue.
Thurston street, 187 feet north from Medford street.
Thurston street, 160 feet south from Evergreen avenue.
Thurston street, 6 feet north from Evergreen avenue.
Thurston street, 348 feet north from Evergreen avenue.
Tower street, 18 feet north from Crown street.
Tremont street, 9 feet south from Webster avenue.
Tremont street, 454 feet south from Webster avenue.
Trull street, 3 feet south from Medford street.
Trull street, 276 feet south from Medford street.
Trull street, 522 feet north from Vernon street.
Trull street, 270 feet north from Vernon street.
Tufts street, 51 feet north from Washington street.
Tufts street, 150 feet south from Glen street.
Tufts street, 43 feet north from Glen street.
Tufts street, 53 feet south from Dell street.
Tufts street, 45 feet south from Cross street.
Tyler street, 31 feet east from Vine street.
Union square, 267 feet east from Webster avenue.
Union square, 15 feet east from Stone avenue.
Union square, in the square, opposite Hill building.
Union square, centre of square.
Union street, 3 feet north from Broadway.
Union street, 123 feet south from Mystic avenue.
Veazie street, 1 foot west from James street.
Vernon street, 72 feet west from Partridge avenue.
Vernon street, 1 foot east from Bartlett street.
Vernon street, 2 feet east from Miner street.
Victoria street, 255 feet south from Broadway.
Villa avenue, 121 feet south from Winslow avenue.
Vinal avenue, 10 feet north from Pleasant avenue.
Vinal avenue, 129 feet north from Aldersey street.
Vinal avenue, 206 feet north from Summer street.
Vinal avenue, 6 feet south from Highland avenue.
Vine street, 15 feet north from Beacon street.
Vine street, opposite Eliot street.
Vine street, 121 feet south from Tyler street.
Vine street, 32 feet south from Somerville avenue.
Virginia street, 45 feet west from Aldrich street.
Waldo street, 6 feet north from Highland avenue.
Wallace street, 37 feet south from Broadway.
Wallace street, 395 feet south from Broadway.
Wallace street, 483 feet north from Park avenue.
Wallace street, 166 feet north from Park avenue.
Wallace street, 10 feet north from Holland street.
Walnut street, opposite Veazie street.
Walnut street, 87 feet north from Gilman street.

Walnut street, 88 feet south from Wellington avenue.
 Walnut street, 31 feet north from Pleasant avenue.
 Walnut street, 12 feet south from Boston street.
 Walter street, 28 feet west from Walnut street.
 Walter street, 50 feet west from Bradley street.
 Ward street, 104 feet west from Medford street.
 Ward street, 3 feet east from Emery street.
 Ware street, 258 feet west from Curtis street.
 Warren avenue, 5 feet north from Sanborn avenue.
 Warren avenue, 48 feet north from Bow street.
 Warren avenue, 7 feet south from Columbus avenue.
 Warwick street, 426 feet east from Cedar street.
 Washington street, 69 feet west from Crescen street.
 Washington street, 3 feet west from Waverley street.
 Washington street, west corner Mt. Vernon street.
 Washington street, 3 feet west from Murray street.
 Washington street, 2 feet east from Bartlett street.
 Washington street, 6 feet west from Florence street.
 Washington street, 15 feet west from Myrtle street.
 Washington street, 18 feet east from Franklin avenue.
 Washington street, 160 feet east from Franklin street.
 Washington street, 50 feet east from Shawmut street.
 Washington street, 37 feet east from Rossmore street.
 Washington street, 78 feet east from Boston street.
 Washington street, 28 feet west from Mystic street.
 Washington street, 6 feet west from Clark place.
 Washington street, 155 feet west from Bonner avenue.
 Washington street, 6 feet east from Kingman court.
 Washington street, 243 feet east from Parker street.
 Washington street, 50 feet east from Bowdoin street.
 Washington street, 9 feet east from Leland street.
 Washington street, 175 feet west from Dane street.
 Washington street, 45 feet east from Beacon street.
 Washington street, 62 feet east from Line street.
 Water street, 91 feet north from South street.
 Water street, 254 feet north from South street.
 Water street, 354 feet north from South street.
 Waterhouse street, 24 feet south from Broadway.
 Waterhouse street, 326 feet south from Broadway.
 Waterhouse street, 630 feet south from Broadway.
 Webster avenue, 93 feet south from Washington street.
 Webster avenue, 12 feet south from Everett street.
 Webster avenue, 25 feet north from Newton street.
 Webster avenue, 63 feet north from Prospect street.
 Webster avenue, 18 feet south from Prospect street.
 Webster avenue, 78 feet north from Tremont street.
 Webster avenue, 3 feet north from Beach avenue.
 Webster avenue, 1 foot south from Columbia court.
 Webster street, 25 feet east from Cross street.
 Webster street, 9 feet east from Rush street.
 Webster street, opposite Cuttler street.
 Wellington avenue, 15 feet west from Montgomery avenue.
 Wesley street, 200 feet north from Pear street.
 Wesley park, 16 feet north from Bow street.
 Wesley park, 335 feet north from Bow street.
 West street 2 feet north from Broadway.
 West street (Ward 7), 92 feet south from Highland avenue.
 West street (Ward 7), 140 feet north from Highland avenue.
 Westminster street, 156 feet south from Electric avenue.
 Westwood road, 90 feet west from Central street.
 Westwood road, 58 feet east from Benton road.
 Wheatland street, 129 feet north from Broadway.

Wheatland street, 9 feet south from Jaques street.
 Wheatland street, 78 feet south from Mystic avenue.
 Whipple street, 101 feet north from Highland avenue.
 William street, 8 feet east from Chandler street.
 Willow avenue, 14 feet north from Summer street.
 Willow avenue, 3 feet north from Lexington avenue.
 Willow avenue, 46 feet south from Morrison avenue.
 Willow avenue, 42 feet south from Fosket street.
 Willow avenue, opposite Mallett street.
 Wilton street, 6 feet east from Nashua street.
 Wilton street, 10 feet east from Lawrence street.
 Windom street, 7 feet south from Summer street.
 Windsor road, 86 feet east from Willow avenue.
 Winslow avenue, 145 feet east from Elm street.
 Winslow avenue, 5 feet west from Grove street.
 Winter street, 130 feet east from Holland street.
 Winter-hill circle, 178 feet north from Broadway.
 Winthrop avenue, 7 feet north from Broadway.
 Woodbine street, 222 feet west from Centre street.
 Wyatt street, 8 feet south from Taunton street.
 Wyatt street, 324 feet east from Washington street.

Revised List of Private Hydrants Supplied from the City of Somerville Mains.

John P. Squire & Co.	8
North Packing and Provision Co.	10
New England Dressed Meat and Wool Co.	5
Boston & Maine Railroad	7
Union Glass Works	1
Fresh Pond Ice Co.	1
American Tube Works	1
Middlesex Bleachery	3
Boston Elevated Railway Co.	1
Metropolitan Sewerage Pumping Station	1
Tufts College	4

Gates—Construction Account.

New gates have been set in the following locations:—

Allen street, 6-inch gate, 10 feet out from east line and 4 feet north from north line of house No. 26.
 Allen street, 8-inch gate, 8 feet out from east line, on north line of Charlestown street.
 Ayer avenue, 10-inch gate, 23 feet 6 inches out from east line, on north line of Morrison avenue.
 Bay State avenue, 8-inch gate, 13 feet 4 inches out from east line, on south line of Broadway.
 Charlestown street, 6-inch gate, 4 feet out from south line and 3 feet east from west line of Merriam street.
 Church street, 4-inch gate, 13 feet 4 inches out from west line and 17 feet south from north line of Lake street.
 College avenue, 10-inch gate, 20 feet out from west line and 24 feet north from north line of house No. 47.
 College avenue, 4-inch gate, 26 feet out from west line, on north line of house No. 47.
 Crocker street, 8-inch gate, 13 feet 4 inches out from west line, on north line of Crown street.
 Crown street, 6-inch gate, 10 feet out from north line, on east line of Porter street.

- Cutter street, 4-inch gate, 14 feet out from west line and 12 feet north from north line of house No. 7.
- Davis square, 6-inch gate, 34 feet out from north line of Highland avenue and 2 feet east from west line of Day street.
- Davis square, 6-inch gate, 25 feet out from north line of Highland avenue and 2 feet west from west line of Day street.
- Day street, 8-inch gate, 10 feet 6 inches out from west line, on south line of Elm street.
- Dover street, 8-inch gate, 13 feet 4 inches out from west line and 1 foot south from south line of Holland street.
- Frederick avenue, 10-inch gate, 13 feet 4 inches out from south line, on west line of Ayer avenue.
- Frederick avenue, 10-inch gate, 13 feet 4 inches out from south line, on east line of Willow avenue.
- Gilman terrace, 4-inch gate, 15 feet out from east line and 8 feet south from north line of house No. 28.
- Granite street, 4-inch gate, 14 feet out from west line and 24 feet north from south line of Osgood street.
- Hall street, 6-inch gate, 10 feet out from north line, on east line of Cherry street.
- Hawthorne street, 6-inch gate, 14 feet out from south line and 15 feet west from east line of West street.
- Henderson street, 3-inch gate, 6 feet 8 inches out from west line, on south line of Wilton street.
- Holyoke road, 6-inch gate, 13 feet 4 inches out from west line, on south line of Elm street.
- Howard street, 6-inch gate, 10 feet out from south line, on east line of Whipple street.
- Josephine avenue, 6-inch gate, 15 feet out from east line, on south line of Frederick avenue.
- Josephine avenue, 8-inch gate, 15 feet out from east line, on south line of Broadway.
- Kingston street, 4-inch gate, 12 feet out from south line, on west line of house No. 46.
- Lake street, 6-inch gate, 13 feet out from north line, on east line of Church street.
- Lears' court, 4-inch gate, 7 feet out from west line, on south line of Main street.
- Lester terrace, 4-inch gate, 12 feet out from south line, on west line of house No. 12.
- Liberty avenue, 8-inch gate, 13 feet 4 inches out from east line, on south line of Broadway.
- Liberty avenue, 8-inch gate, 13 feet 4 inches out from east line, on south line of Kidder avenue.
- Loring street, 2-inch gate, 13 feet out from west line, on north line of house No. 31.
- Lovell street, 6-inch gate, 13 feet 4 inches out from east line, on north line of Broadway.
- Lovell street, 6-inch gate, 13 feet 4 inches out from east line, on south line of Electric avenue.
- Lowden avenue, 8-inch gate, 13 feet 4 inches out from east line, on south line of Broadway.
- Madison street, 6-inch gate, 13 feet 6 inches out from south line, on east line of Sycamore street.
- Madison street, 4-inch gate, 15 feet out from south line and 6 feet west from east line of house No. 18.
- Meacham street, 8-inch gate, 13 feet out from south line, on west line of Lester terrace.
- Medford street, 12-inch gate, 16 feet 8 inches out from east line and 67 feet east from east end of B. & M. R. R. bridge.
- Medford street, 12-inch gate, 16 feet 8 inches out from east line, on south line of Marshall street.

- Medford street, 6-inch gate, 42 feet out from north line of Pearl street and 8 feet west from west line of Masonic building.
- Medford street, 6-inch gate, 6 feet out from north line and 24 feet east from east end of B. & M. R. R. bridge.
- Montrose street, 4-inch gate, 17 feet out from south line and 1 foot west from east line of house No. 17.
- Mt. Pleasant street, 4-inch gate, 13 feet out from west line and 3 feet south from south line of Broadway.
- Mt. Vernon street, 6-inch gate, 17 feet out from west line and 3 feet south from south line of Broadway.
- Pearl street, 6-inch gate, 20 feet out from north line and 16 feet west from east line of Bradley street.
- Pearl street, 6-inch gate, 6 feet out from north line and 13 feet west from east line of Cross street.
- Pritchard avenue, 6-inch gate, 13 feet 4 inches out from east line, on north line of Morrison avenue.
- Professors' row, 12-inch gate, 17 feet out from north line and 34 feet west from west line of Boston avenue.
- Professors' row, 12-inch check valve, 17 feet out from north line and 31 feet west from west line of Boston avenue.
- Rogers avenue, 6-inch gate, 16 feet out from east line, on south line of Frederick avenue.
- Rogers avenue, 6-inch gate, 15 feet out from east line, on north line of Frederick avenue.
- Rogers avenue, 10-inch gate, 16 feet 8 inches out from east line, on south line of Broadway.
- Sanborn's court, 4-inch gate, 10 feet out from east line, on north line of Washington street.
- Spencer avenue, 6-inch gate, 13 feet 4 inches out from north line, on west line of Cedar street.
- Spencer avenue, 6-inch gate, 13 feet 4 inches out from north line, on east line of Fanning avenue.
- Tennyson street, 6-inch gate, 13 feet 4 inches out from west line, on north line of Pembroke street.
- Vernon street, 2-inch gate, 5 feet 4 inches out from waterpost located 45 feet west from Central street.
- Vine street, 6-inch gate, 16 feet out from east line and 7 feet north from south line of Tyler street.
- Washington street, 12-inch gate, 1 foot out from south line and 6 feet west from east line of Asylum avenue.
- Webster street, 8-inch gate, 15 feet out from south line, on east line of Glen street.
- Wesley street, 6-inch gate, 13 feet 4 inches out from east line, on south line of Otis street.
- Wesley park, 4-inch gate, 13 feet 4 inches out from west line and 13 feet north from north line of house No. 22.
- West street, 6-inch gate, 10 feet out from west line, on south line of Highland avenue.
- West street, 6-inch gate, 10 feet out from west line, on north line of Hawthorne street.
- West street, 6-inch gate, 15 feet out from east line and 15 feet south from north line of Hawthorne street.
- Whipple street, 6-inch gate, 10 feet out from east line, on north line of Highland avenue.
- Willoughby street, 8-inch gate, 8 feet 4 inches out from north line, on west line of Sycamore street.
- Willow avenue, 12-inch gate, 16 feet 8 inches out from east line, on south line of Broadway.
- Willow avenue, 12-inch gate, 16 feet 8 inches out from east line, on south line of Frederick avenue.
- Willow avenue, 4-inch gate, 20 feet out from east line and 3 feet south from south line of Broadway.

Gates—Renewal Account.

The following changes have been made in the size and location of main gates:—

- Austin street, 8-inch gate, set 13 feet 4 inches out from west line, on south line of Mystic avenue, and 6-inch gate removed from same location.
- Bow-street place, 6-inch gate, set 12 feet out from east line, on west line of Bow street, and 3-inch gate removed from same location.
- Broadway park, 4-inch gate, set 54 feet out from west line of Chauncey avenue and 9 feet north from south line of house No. 56, and 4-inch gate removed from 7 feet out from park fence line and 12 feet north from south line of house No. 56.
- Church street, 8-inch gate, set 13 feet 4 inches out from west line, on south line of Somerville avenue, and 6-inch gate removed from same location.
- Cutter street, 6-inch gate, set 13 feet 4 inches out from west line, on north line of Webster street, and 6-inch gate removed from same location.
- Cutter street, 6-inch gate, set 13 feet 4 inches out from west line, on south line of Broadway, and 6-inch gate removed from same location.
- Davis square, 12-inch gate, set 47 feet out from south line of Holland street, on east line of Dover street, and 12-inch gate removed from 43 feet out from south line of Holland street, on west line of Dover street.
- Eastman place, 6-inch gate, set 12 feet out from west line, on south line of Highland avenue, and 4-inch gate removed from same location.
- Florence terrace, 2-inch gate, set 5 feet out from north line, on west line of Jaques street, and 2-inch gate removed from same location.
- Garden court, 6-inch gate, set 7 feet out from east line, on south line of Somerville avenue, and 4-inch gate removed from same location.
- Joy-street place, 2-inch gate, set 10 feet out from north line, on west line of Joy street, and 2-inch gate removed from same location.
- Liberty avenue, 2-inch gate, set 3 feet out from waterpost located 46 feet south from Broadway, and 2-inch gate removed from 3 feet out from waterpost located on Broadway 193 feet east from Willow avenue.
- Madison street, 6-inch gate, set 13 feet 6 inches out from south line, on west line of School street, and 6-inch gate removed from same location.
- Medford street, 12-inch gate, set 12 feet out from east line, on south line of School street, and 6-inch gate removed from same location.
- Medford street, 12-inch gate, set 19 feet out from west line, on south line of Lee street, and 12-inch gate removed from same location.
- Montrose street, 8-inch gate, set 13 feet 4 inches out from south line, on east line of Sycamore street, and 6-inch gate removed from same location.
- Montrose street, 8-inch gate, set 13 feet 4 inches out from south line, on west line of School street, and 6-inch gate removed from same location.
- Mt. Pleasant street, 6-inch gate, set 11 feet out from west line, on north line of Perkins street, and 6-inch gate removed from same location.
- Mt. Pleasant street, 6-inch gate, set 11 feet out from west line, on south line of Broadway, and 6-inch gate removed from same location.
- Mt. Vernon street, 10-inch gate, set 13 feet 4 inches out from west line, on north line of Perkins street, and 6-inch gate removed from same location.
- Mt. Vernon street, 10-inch gate, set 13 feet 4 inches out from west line, on south line of Broadway, and 6-inch gate removed from same location.
- Pearl street, 12-inch gate, set 15 feet 6 inches out from north line, on west line of Walnut street, and 6-inch gate removed from same location.
- Pearl street, 12-inch gate, set 16 feet 8 inches out from north line, on east line of Marshall street, and 6-inch gate removed from same location.

- Medford street, 6-inch gate, 42 feet out from north line of Pearl street and 8 feet west from west line of Masonic building.
- Medford street, 6-inch gate, 6 feet out from north line and 24 feet east from east end of B. & M. R. R. bridge.
- Montrose street, 4-inch gate, 17 feet out from south line and 1 foot west from east line of house No. 17.
- Mt. Pleasant street, 4-inch gate, 13 feet out from west line and 3 feet south from south line of Broadway.
- Mt. Vernon street, 6-inch gate, 17 feet out from west line and 3 feet south from south line of Broadway.
- Pearl street, 6-inch gate, 20 feet out from north line and 16 feet west from east line of Bradley street.
- Pearl street, 6-inch gate, 6 feet out from north line and 13 feet west from east line of Cross street.
- Pritchard avenue, 6-inch gate, 13 feet 4 inches out from east line, on north line of Morrison avenue.
- Professors' row, 12-inch gate, 17 feet out from north line and 34 feet west from west line of Boston avenue.
- Professors' row, 12-inch check valve, 17 feet out from north line and 31 feet west from west line of Boston avenue.
- Rogers avenue, 6-inch gate, 16 feet out from east line, on south line of Frederick avenue.
- Rogers avenue, 6-inch gate, 15 feet out from east line, on north line of Frederick avenue.
- Rogers avenue, 10-inch gate, 16 feet 8 inches out from east line, on south line of Broadway.
- Sanborn's court, 4-inch gate, 10 feet out from east line, on north line of Washington street.
- Spencer avenue, 6-inch gate, 13 feet 4 inches out from north line, on west line of Cedar street.
- Spencer avenue, 6-inch gate, 13 feet 4 inches out from north line, on east line of Fanning avenue.
- Tennyson street, 6-inch gate, 13 feet 4 inches out from west line, on north line of Pembroke street.
- Vernon street, 2-inch gate, 5 feet 4 inches out from waterpost located 45 feet west from Central street.
- Vine street, 6-inch gate, 16 feet out from east line and 7 feet north from south line of Tyler street.
- Washington street, 12-inch gate, 1 foot out from south line and 6 feet west from east line of Asylum avenue.
- Webster street, 8-inch gate, 15 feet out from south line, on east line of Glen street.
- Wesley street, 6-inch gate, 13 feet 4 inches out from east line, on south line of Otis street.
- Wesley park, 4-inch gate, 13 feet 4 inches out from west line and 13 feet north from north line of house No. 22.
- West street, 6-inch gate, 10 feet out from west line, on south line of Highland avenue.
- West street, 6-inch gate, 10 feet out from west line, on north line of Hawthorne street.
- West street, 6-inch gate, 15 feet out from east line and 15 feet south from north line of Hawthorne street.
- Whipple street, 6-inch gate, 10 feet out from east line, on north line of Highland avenue.
- Willoughby street, 8-inch gate, 8 feet 4 inches out from north line, on west line of Sycamore street.
- Willow avenue, 12-inch gate, 16 feet 8 inches out from east line, on south line of Broadway.
- Willow avenue, 12-inch gate, 16 feet 8 inches out from east line, on south line of Frederick avenue.
- Willow avenue, 4-inch gate, 20 feet out from east line and 3 feet south from south line of Broadway.*

Highland avenue, 42 feet east from Crocker street.
 Holland street, 30 feet west from Elmwood street.
 Jaques street, 159 feet west from Grant street.
 Laurel street, 20 feet south from Summer street.
 Liberty avenue, 46 feet south from Broadway.
 Linwood street, 70 feet west from Poplar street.
 Medford street, at Gilman square.
 Medford street, 45 feet east from Lee street.
 Medford street, 19 feet east from Jenny Lind avenue.
 Montrose street, 204 feet west from School street.
 Mystic avenue, 33 feet west from Union street.
 Orchard street, 107 feet west from Dover street.
 Otis street, 127 feet west from Cross street.
 Pearl street, 28 feet east from Myrtle street.
 Putnam street, 96 feet north from Summer street.
 School street, 116 feet south from Broadway.
 School street, 50 feet north from Berkeley street.
 Somerville avenue, 175 feet east from Fitchburg R. R. crossing.
 Somerville avenue, 246 feet east from Poplar street.
 Somerville avenue, 89 feet east from Mystic street.
 Somerville avenue, 119 feet west from School street.
 Somerville avenue, 92 feet west from Kent street.
 Somerville avenue, 42 feet east from Mossland street.
 Summer street, 14 feet east from Belmont street.
 Summer street, 32 feet east from Cedar street.
 Summer street, 35 feet east from Cutter avenue.
 Tufts street, 114 feet east from Cross street.
 Vernon street, 45 feet west from Central street.
 Washington street, 96 feet west from Myrtle street.
 Washington street, 7 feet west from Boston street.
 Washington street, 34 feet west from Union square.
 Washington street, opposite Leland street.
 Wheatland street, 30 feet south from Mystic avenue.
 Webster avenue, 68 feet north from Tremont street.

Location of Drinking Fountains.

Broadway, opposite park, near Winthrop avenue .	H
Union square, junction Somerville avenue and Washington street	H
Union square, in front of Hill building	D I
Highland avenue, in front of City Hall Annex	D
Gilman square	C
Cutter square	C
Davis square, in front of Medina building	D I
Teele square	C

H, horse trough; D, drinking fountain; I, ice water; C, combination trough and drinking fountain.

METER TABLE.

SHOWING THE NUMBER OF METERS AND CLOCKS IN SERVICE, THE PURPOSE FOR WHICH THEY ARE USED, AND THE INCOME RECEIVED.

PURPOSE.	Number.	Meters Set.	Meters Removed.	Amount Received.
Apartment Houses and Tenements .	12	16		\$1,109 43
Bacon Works	3	4		204 81
Bakeries	4	4		178 27
Bleachery and Dye Works	2	2		593 26
Boarding-houses	4	4		110 62
Bottling Works	2	2		37 64
Bowling Alleys	1	1		51 05
Carhouses	3	5		553 63
Churches	1	1		28 00
Clubhouses	2	2	1	15 00
Coal Wharves	2	2		608 53
Colleges	1	10		524 22
Distilleries	1	1		246 20
Electric Light Stations	1	1		1,864 20
Elevator Clocks	1	1		355 84
Factories	19	21	2	2,335 78
Fire Stations	8	8	8	
Foundries	2	2	1	21 28
Glass Works	2	2		228 26
Grain Elevators	1	1		51 52
Greenhouses	1	2		82 04
Halls	1	1		15 00
Hospitals	2	3		259 14
Hotels	4	4		358 51
Machine Shops	1	1		17 92
Milk Business	4	4	1	131 32
Motor Clocks	7	7		89 32
Offices and Stores	25	25	2	1,134 98
Photograph Studios	1	1		171 02
Pickle and Preserving Works	2	2	1	170 36
Poultry Farms	3	3		77 25
Printing Offices	1	1		49 98
Public Buildings	10	10	10	
Pumping Stations	1	1		447 96
Railway Stations	4	4		355 89
Railway Yards	2	2		14,061 24
Schoolhouses	25	25	23	50 00
Slaughtering and Rendering Establish- ments	5	19		19,181 56
Soap Works	2	2		150 65
Stables	47	47	2	1,951 10
Steam Engines	2	2		82 04
Vinegar Works	2	3		74 20
Wood Yards	2	2		175 62
		261	51	\$48,204 61

The quantity of water registered by the above meters and clocks in 1900 was 43,995,448 cubic feet.

Defects in Street Mains.

The following bursts and leaks in street mains occurred in 1900:—

BURSTS.

	SIZE OF MAIN.	NUMBER.
	3"	1
	4"	2
	16"	1
	20"	2
Total		6

LEAKS.

	SIZE OF MAIN.	NUMBER.
	6"	4
	10"	1
	12"	4
	14"	1
	20"	2
Total		12

Sycamore street, 1 foot south from Forster street.
Sycamore street, 200 feet north from Medford street.
Sycamore street, 174 feet south from Medford street.
Sydney street, 418 feet east from Temple street.
Talbot avenue, 488 feet east from Packard avenue.
Temple street, 4 feet north from Broadway.
Temple street, 123 feet south from Sewall street.
Temple street, 11 feet north from Jaques street.
Temple street, 6 feet south from Derby street.
Temple street, 5 feet south from Sydney street.
Tenney court, 306 feet north from Mystic avenue.
Tennyson street, 4 feet south from Medford street.
Tennyson street, 117 feet north from Pembroke street.
Thorndike street, 4 feet south from Holland street.
Thorndike street, 82 feet north from Kingston street.
Thorpe place, 269 feet south from Highland avenue.
Thurston street, 187 feet north from Medford street.
Thurston street, 160 feet south from Evergreen avenue.
Thurston street, 6 feet north from Evergreen avenue.
Thurston street, 348 feet north from Evergreen avenue.
Tower street, 18 feet north from Crown street.
Tremont street, 9 feet south from Webster avenue.
Tremont street, 454 feet south from Webster avenue.
Trull street, 3 feet south from Medford street.
Trull street, 276 feet south from Medford street.
Trull street, 522 feet north from Vernon street.
Trull street, 270 feet north from Vernon street.
Tufts street, 51 feet north from Washington street.
Tufts street, 150 feet south from Glen street.
Tufts street, 43 feet north from Glen street.
Tufts street, 53 feet south from Dell street.
Tufts street, 45 feet south from Cross street.
Tyler street, 31 feet east from Vine street.
Union square, 267 feet east from Webster avenue.
Union square, 15 feet east from Stone avenue.
Union square, in the square, opposite Hill building.
Union square, centre of square.
Union street, 3 feet north from Broadway.
Union street, 123 feet south from Mystic avenue.
Veazie street, 1 foot west from James street.
Vernon street, 72 feet west from Partridge avenue.
Vernon street, 1 foot east from Bartlett street.
Vernon street, 2 feet east from Miner street.
Victoria street, 255 feet south from Broadway.
Villa avenue, 121 feet south from Winslow avenue.
Vinal avenue, 10 feet north from Pleasant avenue.
Vinal avenue, 129 feet north from Aldersey street.
Vinal avenue, 206 feet north from Summer street.
Vinal avenue, 6 feet south from Highland avenue.
Vine street, 15 feet north from Beacon street.
Vine street, opposite Eliot street.
Vine street, 121 feet south from Tyler street.
Vine street, 32 feet south from Somerville avenue.
Virginia street, 45 feet west from Aldrich street.
Waldo street, 6 feet north from Highland avenue.
Wallace street, 37 feet south from Broadway.
Wallace street, 395 feet south from Broadway.
Wallace street, 483 feet north from Park avenue.
Wallace street, 166 feet north from Park avenue.
Wallace street, 10 feet north from Holland street.
Walnut street, opposite Veazie street.
Walnut street, 87 feet north from Gilman street.

Walnut street, 88 feet south from Wellington avenue.
 Walnut street, 31 feet north from Pleasant avenue.
 Walnut street, 12 feet south from Boston street.
 Walter street, 28 feet west from Walnut street.
 Walter street, 50 feet west from Bradley street.
 Ward street, 104 feet west from Medford street.
 Ward street, 3 feet east from Emery street.
 Ware street, 258 feet west from Curtis street.
 Warren avenue, 5 feet north from Sanborn avenue.
 Warren avenue, 48 feet north from Bow street.
 Warren avenue, 7 feet south from Columbus avenue.
 Warwick street, 426 feet east from Cedar street.
 Washington street, 69 feet west from Crescent street.
 Washington street, 3 feet west from Waverley street.
 Washington street, west corner Mt. Vernon street.
 Washington street, 3 feet west from Murray street.
 Washington street, 2 feet east from Bartlet street.
 Washington street, 6 feet west from Florence street.
 Washington street, 15 feet west from Myrtle street.
 Washington street, 18 feet east from Franklin avenue.
 Washington street, 160 feet east from Franklin street.
 Washington street, 50 feet east from Shawmut street.
 Washington street, 37 feet east from Rossmore street.
 Washington street, 78 feet east from Boston street.
 Washington street, 28 feet west from Mystic street.
 Washington street, 6 feet west from Clark place.
 Washington street, 156 feet west from Bonner avenue.
 Washington street, 6 feet east from Kingman court.
 Washington street, 243 feet east from Parker street.
 Washington street, 50 feet east from Bowdoin street.
 Washington street, 9 feet east from Leland street.
 Washington street, 175 feet west from Dane street.
 Washington street, 45 feet east from Beacon street.
 Washington street, 62 feet east from Line street.
 Water street, 91 feet north from South street.
 Water street, 254 feet north from South street.
 Water street, 354 feet north from South street.
 Waterhouse street, 24 feet south from Broadway.
 Waterhouse street, 326 feet south from Broadway.
 Waterhouse street, 630 feet south from Broadway.
 Webster avenue, 93 feet south from Washington street.
 Webster avenue, 12 feet south from Everett street.
 Webster avenue, 25 feet north from Newton street.
 Webster avenue, 63 feet north from Prospect street.
 Webster avenue, 18 feet south from Prospect street.
 Webster avenue, 78 feet north from Tremont street.
 Webster avenue, 3 feet north from Beach avenue.
 Webster avenue, 1 foot south from Columbia court.
 Webster street, 25 feet east from Cross street.
 Webster street, 9 feet east from Rush street.
 Webster street, opposite Cutter street.
 Wellington avenue, 15 feet west from Montgomery avenue.
 Wesley street, 200 feet north from Pearl street.
 Wesley park, 16 feet north from Bow street.
 Wesley park, 335 feet north from Bow street.
 West street, 2 feet north from Broadway.
 West street (Ward 7), 92 feet south from Highland avenue.
 West street (Ward 7), 140 feet north from Highland avenue.
 Westminster street, 156 feet south from Electric avenue.
 Westwood road, 90 feet west from Central street.
 Westwood road, 58 feet east from Benton road.
 Wheatland street, 129 feet north from Broadway.

Wheatland street, 9 feet south from Jaques street.
 Wheatland street, 78 feet south from Mystic avenue.
 Whipple street, 101 feet north from Highland avenue.
 William street, 8 feet east from Chandler street.
 Willow avenue, 14 feet north from Summer street.
 Willow avenue, 3 feet north from Lexington avenue.
 Willow avenue, 46 feet south from Morrison avenue.
 Willow avenue, 42 feet south from Fosket street.
 Willow avenue, opposite Mallett street.
 Wilton street, 6 feet east from Nashua street.
 Wilton street, 10 feet east from Lawrence street.
 Windom street, 7 feet south from Summer street.
 Windsor road, 86 feet east from Willow avenue.
 Winslow avenue, 145 feet east from Elm street.
 Winslow avenue, 5 feet west from Grove street.
 Winter street, 130 feet east from Holland street.
 Winter-hill circle, 178 feet north from Broadway.
 Winthrop avenue, 7 feet north from Broadway.
 Woodbine street, 222 feet west from Centre street.
 Wyatt street, 8 feet south from Taunton street.
 Wyatt street, 324 feet east from Washington street.

Revised List of Private Hydrants Supplied from the City of Somerville Mains.

John P. Squire & Co.	8
North Packing and Provision Co.	10
New England Dressed Meat and Wool Co.	5
Boston & Maine Railroad	7
Union Glass Works	1
Fresh Pond Ice Co.	1
American Tube Works	1
Middlesex Bleachery	3
Boston Elevated Railway Co.	1
Metropolitan Sewerage Pumping Station	1
Tufts College	4

Gates—Construction Account.

New gates have been set in the following locations:—

Allen street, 6-inch gate, 10 feet out from east line and 4 feet north from north line of house No. 26.
 Allen street, 8-inch gate, 8 feet out from east line, on north line of Charlestown street.
 Ayer avenue, 10-inch gate, 23 feet 6 inches out from east line, on north line of Morrison avenue.
 Bay State avenue, 8-inch gate, 13 feet 4 inches out from east line, on south line of Broadway.
 Charlestown street, 6-inch gate, 4 feet out from south line and 3 feet east from west line of Merriam street.
 Church street, 4-inch gate, 13 feet 4 inches out from west line and 17 feet south from north line of Lake street.
 College avenue, 10-inch gate, 20 feet out from west line and 24 feet north from north line of house No. 47.
 College avenue, 4-inch gate, 26 feet out from west line, on north line of house No. 47.
 Crocker street, 8-inch gate, 13 feet 4 inches out from west line, on north line of Crown street.
 Crown street, 6-inch gate, 10 feet out from north line, on east line of Porter street.

- Cutter street, 4-inch gate, 14 feet out from west line and 12 feet north from north line of house No. 7.
- Davis square, 6-inch gate, 34 feet out from north line of Highland avenue and 2 feet east from west line of Day street.
- Davis square, 6-inch gate, 25 feet out from north line of Highland avenue and 2 feet west from west line of Day street.
- Day street, 8-inch gate, 10 feet 6 inches out from west line, on south line of Elm street.
- Dover street, 8-inch gate, 13 feet 4 inches out from west line and 1 foot south from south line of Holland street.
- Frederick avenue, 10-inch gate, 13 feet 4 inches out from south line, on west line of Ayer avenue.
- Frederick avenue, 10-inch gate, 13 feet 4 inches out from south line, on east line of Willow avenue.
- Gilman terrace, 4-inch gate, 15 feet out from east line and 8 feet south from north line of house No. 28.
- Granite street, 4-inch gate, 14 feet out from west line and 24 feet north from south line of Osgood street.
- Hall street, 6-inch gate, 10 feet out from north line, on east line of Cherry street.
- Hawthorne street, 6-inch gate, 14 feet out from south line and 15 feet west from east line of West street.
- Henderson street, 3-inch gate, 6 feet 8 inches out from west line, on south line of Wilton street.
- Holyoke road, 6-inch gate, 13 feet 4 inches out from west line, on south line of Elm street.
- Howard street, 6-inch gate, 10 feet out from south line, on east line of Whipple street.
- Josephine avenue, 6-inch gate, 15 feet out from east line, on south line of Frederick avenue.
- Josephine avenue, 8-inch gate, 15 feet out from east line, on south line of Broadway.
- Kingston street, 4-inch gate, 12 feet out from south line, on west line of house No. 46.
- Lake street, 6-inch gate, 13 feet out from north line, on east line of Church street.
- Lears' court, 4-inch gate, 7 feet out from west line, on south line of Main street.
- Lester terrace, 4-inch gate, 12 feet out from south line, on west line of house No. 12.
- Liberty avenue, 8-inch gate, 13 feet 4 inches out from east line, on south line of Broadway.
- Liberty avenue, 8-inch gate, 13 feet 4 inches out from east line, on south line of Kidder avenue.
- Loring street, 2-inch gate, 13 feet out from west line, on north line of house No. 31.
- Lovell street, 6-inch gate, 13 feet 4 inches out from east line, on north line of Broadway.
- Lovell street, 6-inch gate, 13 feet 4 inches out from east line, on south line of Electric avenue.
- Lowden avenue, 8-inch gate, 13 feet 4 inches out from east line, on south line of Broadway.
- Madison street, 6-inch gate, 13 feet 6 inches out from south line, on east line of Sycamore street.
- Madison street, 4-inch gate, 15 feet out from south line and 6 feet west from east line of house No. 18.
- Meacham street, 8-inch gate, 13 feet out from south line, on west line of Lester terrace.
- Medford street, 12-inch gate, 16 feet 8 inches out from east line and 67 feet east from east end of B. & M. R. R. bridge.
- Medford street, 12-inch gate, 16 feet 8 inches out from east line, on south line of Marshall street.

- Medford street, 6-inch gate, 42 feet out from north line of Pearl street and 8 feet west from west line of Masonic building.
- Medford street, 6-inch gate, 6 feet out from north line and 24 feet east from east end of B. & M. R. R. bridge.
- Montrose street, 4-inch gate, 17 feet out from south line and 1 foot west from east line of house No. 17.
- Mt. Pleasant street, 4-inch gate, 13 feet out from west line and 3 feet south from south line of Broadway.
- Mt. Vernon street, 6-inch gate, 17 feet out from west line and 3 feet south from south line of Broadway.
- Pearl street, 6-inch gate, 20 feet out from north line and 16 feet west from east line of Bradley street.
- Pearl street, 6-inch gate, 6 feet out from north line and 13 feet west from east line of Cross street.
- Pritchard avenue, 6-inch gate, 13 feet 4 inches out from east line, on north line of Morrison avenue.
- Professors' row, 12-inch gate, 17 feet out from north line and 34 feet west from west line of Boston avenue.
- Professors' row, 12-inch check valve, 17 feet out from north line and 31 feet west from west line of Boston avenue.
- Rogers avenue, 6-inch gate, 16 feet out from east line, on south line of Frederick avenue.
- Rogers avenue, 6-inch gate, 15 feet out from east line, on north line of Frederick avenue.
- Rogers avenue, 10-inch gate, 16 feet 8 inches out from east line, on south line of Broadway.
- Sanborn's court, 4-inch gate, 10 feet out from east line, on north line of Washington street.
- Spencer avenue, 6-inch gate, 13 feet 4 inches out from north line, on west line of Cedar street.
- Spencer avenue, 6-inch gate, 13 feet 4 inches out from north line, on east line of Fanning avenue.
- Tennyson street, 6-inch gate, 13 feet 4 inches out from west line, on north line of Pembroke street.
- Vernon street, 2-inch gate, 5 feet 4 inches out from waterpost located 45 feet west from Central street.
- Vine street, 6-inch gate, 16 feet out from east line and 7 feet north from south line of Tyler street.
- Washington street, 12-inch gate, 1 foot out from south line and 6 feet west from east line of Asylum avenue.
- Webster street, 8-inch gate, 15 feet out from south line, on east line of Glen street.
- Wesley street, 6-inch gate, 13 feet 4 inches out from east line, on south line of Otis street.
- Wesley park, 4-inch gate, 13 feet 4 inches out from west line and 13 feet north from north line of house No. 22.
- West street, 6-inch gate, 10 feet out from west line, on south line of Highland avenue.
- West street, 6-inch gate, 10 feet out from west line, on north line of Hawthorne street.
- West street, 6-inch gate, 15 feet out from east line and 15 feet south from north line of Hawthorne street.
- Whipple street, 6-inch gate, 10 feet out from east line, on north line of Highland avenue.
- Willoughby street, 8-inch gate, 8 feet 4 inches out from north line, on west line of Sycamore street.
- Willow avenue, 12-inch gate, 16 feet 8 inches out from east line, on south line of Broadway.
- Willow avenue, 12-inch gate, 16 feet 8 inches out from east line, on south line of Frederick avenue.
- Willow avenue, 4-inch gate, 20 feet out from east line and 3 feet south from south line of Broadway.

Gates—Renewal Account.

The following changes have been made in the size and location of main gates:—

- Austin street, 8-inch gate, set 13 feet 4 inches out from west line, on south line of Mystic avenue, and 6-inch gate removed from same location.
- Bow-street place, 6-inch gate, set 12 feet out from east line, on west line of Bow street, and 8-inch gate removed from same location.
- Broadway park, 4-inch gate, set 54 feet out from west line of Chauncey avenue and 9 feet north from south line of house No. 56, and 4-inch gate removed from 7 feet out from park fence line and 12 feet north from south line of house No. 56.
- Church street, 8-inch gate, set 13 feet 4 inches out from west line, on south line of Somerville avenue, and 6-inch gate removed from same location.
- Cutter street, 6-inch gate, set 13 feet 4 inches out from west line, on north line of Webster street, and 6-inch gate removed from same location.
- Cutter street, 6-inch gate, set 13 feet 4 inches out from west line, on south line of Broadway, and 6-inch gate removed from same location.
- Davis square, 12-inch gate, set 47 feet out from south line of Holland street, on east line of Dover street, and 12-inch gate removed from 43 feet out from south line of Holland street, on west line of Dover street.
- Eastman place, 6-inch gate, set 12 feet out from west line, on south line of Highland avenue, and 4-inch gate removed from same location.
- Florence terrace, 2-inch gate, set 5 feet out from north line, on west line of Jaques street, and 2-inch gate removed from same location.
- Garden court, 6-inch gate, set 7 feet out from east line, on south line of Somerville avenue, and 4-inch gate removed from same location.
- Joy-street place, 2-inch gate, set 10 feet out from north line, on west line of Joy street, and 2-inch gate removed from same location.
- Liberty avenue, 2-inch gate, set 3 feet out from waterpost located 46 feet south from Broadway, and 2-inch gate removed from 3 feet out from waterpost located on Broadway 193 feet east from Willow avenue.
- Madison street, 6-inch gate, set 13 feet 6 inches out from south line, on west line of School street, and 6-inch gate removed from same location.
- Medford street, 12-inch gate, set 12 feet out from east line, on south line of School street, and 6-inch gate removed from same location.
- Medford street, 12-inch gate, set 19 feet out from west line, on south line of Lee street, and 12-inch gate removed from same location.
- Montrose street, 8-inch gate, set 13 feet 4 inches out from south line, on east line of Sycamore street, and 6-inch gate removed from same location.
- Montrose street, 8-inch gate, set 13 feet 4 inches out from south line, on west line of School street, and 6-inch gate removed from same location.
- Mt. Pleasant street, 6-inch gate, set 11 feet out from west line, on north line of Perkins street, and 6-inch gate removed from same location.
- Mt. Pleasant street, 6-inch gate, set 11 feet out from west line, on south line of Broadway, and 6-inch gate removed from same location.
- Mt. Vernon street, 10-inch gate, set 13 feet 4 inches out from west line, on north line of Perkins street, and 6-inch gate removed from same location.
- Mt. Vernon street, 10-inch gate, set 13 feet 4 inches out from west line, on south line of Broadway, and 6-inch gate removed from same location.
- Pearl street, 12-inch gate, set 15 feet 6 inches out from north line, on west line of Walnut street, and 6-inch gate removed from same location.
- Pearl street, 12-inch gate, set 16 feet 8 inches out from north line, on east line of Marshall street, and 6-inch gate removed from same location.

- Medford street, 6-inch gate, 42 feet out from north line of Pearl street and 8 feet west from west line of Masonic building.
- Medford street, 6-inch gate, 6 feet out from north line and 24 feet east from east end of B. & M. R. R. bridge.
- Montrose street, 4-inch gate, 17 feet out from south line and 1 foot west from east line of house No. 17.
- Mt. Pleasant street, 4-inch gate, 13 feet out from west line and 3 feet south from south line of Broadway.
- Mt. Vernon street, 6-inch gate, 17 feet out from west line and 3 feet south from south line of Broadway.
- Pearl street, 6-inch gate, 20 feet out from north line and 16 feet west from east line of Bradley street.
- Pearl street, 6-inch gate, 6 feet out from north line and 13 feet west from east line of Cross street.
- Pritchard avenue, 6-inch gate, 13 feet 4 inches out from east line, on north line of Morrison avenue.
- Professors' row, 12-inch gate, 17 feet out from north line and 34 feet west from west line of Boston avenue.
- Professors' row, 12-inch check valve, 17 feet out from north line and 31 feet west from west line of Boston avenue.
- Rogers avenue, 6-inch gate, 16 feet out from east line, on south line of Frederick avenue.
- Rogers avenue, 6-inch gate, 15 feet out from east line, on north line of Frederick avenue.
- Rogers avenue, 10-inch gate, 16 feet 8 inches out from east line, on south line of Broadway.
- Sanborn's court, 4-inch gate, 10 feet out from east line, on north line of Washington street.
- Spencer avenue, 6-inch gate, 13 feet 4 inches out from north line, on west line of Cedar street.
- Spencer avenue, 6-inch gate, 13 feet 4 inches out from north line, on east line of Fanning avenue.
- Tennyson street, 6-inch gate, 13 feet 4 inches out from west line, on north line of Pembroke street.
- Vernon street, 2-inch gate, 5 feet 4 inches out from waterpost located 45 feet west from Central street.
- Vine street, 6-inch gate, 16 feet out from east line and 7 feet north from south line of Tyler street.
- Washington street, 12-inch gate, 1 foot out from south line and 6 feet west from east line of Asylum avenue.
- Webster street, 8-inch gate, 15 feet out from south line, on east line of Glen street.
- Wesley street, 6-inch gate, 13 feet 4 inches out from east line, on south line of Otis street.
- Wesley park, 4-inch gate, 13 feet 4 inches out from west line and 13 feet north from north line of house No. 22.
- West street, 6-inch gate, 10 feet out from west line, on south line of Highland avenue.
- West street, 6-inch gate, 10 feet out from west line, on north line of Hawthorne street.
- West street, 6-inch gate, 15 feet out from east line and 15 feet south from north line of Hawthorne street.
- Whipple street, 6-inch gate, 10 feet out from east line, on north line of Highland avenue.
- Willoughby street, 8-inch gate, 8 feet 4 inches out from north line, on west line of Sycamore street.
- Willow avenue, 12-inch gate, 16 feet 8 inches out from east line, on south line of Broadway.
- Willow avenue, 12-inch gate, 16 feet 8 inches out from east line, on south line of Frederick avenue.
- Willow avenue, 4-inch gate, 20 feet out from east line and 3 feet south from south line of Broadway.*

Highland avenue, 42 feet east from Crocker street.
 Holland street, 30 feet west from Elmwood street.
 Jaques street, 159 feet west from Grant street.
 Laurel street, 20 feet south from Summer street.
 Liberty avenue, 46 feet south from Broadway.
 Linwood street, 70 feet west from Poplar street.
 Medford street, at Gilman square.
 Medford street, 45 feet east from Lee street.
 Medford street, 19 feet east from Jenny Lind avenue.
 Montrose street, 204 feet west from School street.
 Mystic avenue, 33 feet west from Union street.
 Orchard street, 107 feet west from Dover street.
 Otis street, 127 feet west from Cross street.
 Pearl street, 28 feet east from Myrtle street.
 Putnam street, 96 feet north from Summer street.
 School street, 116 feet south from Broadway.
 School street, 50 feet north from Berkeley street.
 Somerville avenue, 175 feet east from Fitchburg R. R. crossing.
 Somerville avenue, 246 feet east from Poplar street.
 Somerville avenue, 89 feet east from Mystic street.
 Somerville avenue, 119 feet west from School street.
 Somerville avenue, 92 feet west from Kent street.
 Somerville avenue, 42 feet east from Mossland street.
 Summer street, 14 feet east from Belmont street.
 Summer street, 32 feet east from Cedar street.
 Summer street, 35 feet east from Cutter avenue.
 Tufts street, 114 feet east from Cross street.
 Vernon street, 45 feet west from Central street.
 Washington street, 96 feet west from Myrtle street.
 Washington street, 7 feet west from Boston street.
 Washington street, 34 feet west from Union square.
 Washington street, opposite Leland street.
 Wheatland street, 30 feet south from Mystic avenue.
 Webster avenue, 68 feet north from Tremont street.

Location of Drinking Fountains.

Broadway, opposite park, near Winthrop avenue .	H
Union square, junction Somerville avenue and Washington street	H
Union square, in front of Hill building	D I
Highland avenue, in front of City Hall Annex	D
Gilman square	C
Cutter square	C
Davis square, in front of Medina building	D I
Teale square	C

H, horse trough; D, drinking fountain; I, ice water; C, combination trough and drinking fountain.

- Pearl street, 12-inch gate, set 16 feet 8 inches out from north line, on west line of Cross street, and 6-inch gate removed from same location.
- Pearl street, 12-inch gate, set 13 feet out from north line, on east line of Cross street, and 8-inch gate removed from same location.
- Pembroke street, 6-inch gate, set 13 feet 4 inches out from south line, on east line of Central street, and 4-inch gate removed from 17 feet out from south line, on east line of Central street.
- Perkins place, 4-inch gate, set 7 feet out from west line, on north line of Perkins street, and 4-inch gate removed from 10 feet out from west line and 17 feet south from north line of Perkins street.
- School street, 10-inch gate, set 16 feet 8 inches out from east line, on south line of Broadway, and 6-inch gate removed from same location.
- Webster street, 8-inch gate, set 15 feet out from south line, on west line of Franklin street, and 6-inch gate removed from 10 feet out from north line, on west line of Franklin street.
- Wesley park, 6-inch gate, set 13 feet 4 inches out from west line, on north line of Bow street, and 4-inch gate removed from same location.
- Broadway, 8-inch gate, removed from 34 feet out from south line and 21 feet west from east line of Central street.
- Pearl street, 8-inch gate, removed from 16 feet out from north line and 15 feet west from east line of Marshall street.

RECAPITULATION.

GATES.	1"	1 1-2"	2"	3"	4"	6"	8"	10"	12"	16"	Total.
Set . . .	..	..	5	1	16	41	17	8	13	..	101
Removed . . .	..	..	3	1	6	17	3	..	2	..	32

Net increase in number of gates in 1900 . . . 69
 Total number of gates in the city January 1, 1901 . 1,203

Location of Water Posts.

- Albion street, 83 feet west from Centre street.
- Appleton street, 49 feet west from Willow avenue.
- Beacon street, 160 feet west from Buckingham street.
- Beacon street, 33 feet west from Vine street.
- Beacon street, 94 feet east from Sacramento street.
- Bond street, 14 feet north from Broadway.
- Boston street, 107 feet west from Greenville street.
- Broadway, 42 feet east from Franklin street.
- Broadway, 75 feet west from Winthrop avenue.
- Broadway, 6 feet west from Farm lane.
- Broadway, 6 feet west from Irving street.
- Broadway, 120 feet west from Clarendon avenue.
- Broadway, 20 feet west from North street.
- Cherry street, 161 feet south from Fairlee street.
- Columbus avenue, opposite Stone avenue.
- Concord avenue, opposite Knapp school.
- Elm street, 25 feet west from Burnside avenue.
- Elm street, opposite Morrison street.
- Elm street, 5 feet south from Kenwood street.
- Flint street, 47 feet east from Cross street.
- Gilman street, 69 feet east from Walnut street.
- Grove street, 19 feet south from Highland avenue.
- Highland avenue, 44 feet west from Hamlet street.
- Highland avenue, 50 feet west from Putnam street.
- Highland avenue, 15 feet west from Central street.

Highland avenue, 42 feet east from Crocker street.
 Holland street, 30 feet west from Elmwood street.
 Jaques street, 159 feet west from Grant street.
 Laurel street, 20 feet south from Summer street.
 Liberty avenue, 46 feet south from Broadway.
 Linwood street, 70 feet west from Poplar street.
 Medford street, at Gilman square.
 Medford street, 45 feet east from Lee street.
 Medford street, 19 feet east from Jenny Lind avenue.
 Montrose street, 204 feet west from School street.
 Mystic avenue, 33 feet west from Union street.
 Orchard street, 107 feet west from Dover street.
 Otis street, 127 feet west from Cross street.
 Pearl street, 28 feet east from Myrtle street.
 Putnam street, 96 feet north from Summer street.
 School street, 116 feet south from Broadway.
 School street, 50 feet north from Berkeley street.
 Somerville avenue, 175 feet east from Fitchburg R. R. crossing.
 Somerville avenue, 246 feet east from Poplar street.
 Somerville avenue, 89 feet east from Mystic street.
 Somerville avenue, 119 feet west from School street.
 Somerville avenue, 92 feet west from Kent street.
 Somerville avenue, 42 feet east from Mossland street.
 Summer street, 14 feet east from Belmont street.
 Summer street, 32 feet east from Cedar street.
 Summer street, 35 feet east from Cutter avenue.
 Tufts street, 114 feet east from Cross street.
 Vernon street, 45 feet west from Central street.
 Washington street, 96 feet west from Myrtle street.
 Washington street, 7 feet west from Boston street.
 Washington street, 34 feet west from Union square.
 Washington street, opposite Leland street.
 Wheatland street, 30 feet south from Mystic avenue.
 Webster avenue, 68 feet north from Tremont street.

Location of Drinking Fountains.

Broadway, opposite park, near Winthrop avenue .	H
Union square, junction Somerville avenue and Washington street	H
Union square, in front of Hill building	D I
Highland avenue, in front of City Hall Annex	D
Gilman square	C
Cutter square	C
Davis square, in front of Medina building	D I
Teale square	C

H, horse trough; D, drinking fountain; I, ice water; C, combination trough and drinking fountain.

METER TABLE.

SHOWING THE NUMBER OF METERS AND CLOCKS IN SERVICE, THE PURPOSE FOR WHICH THEY ARE USED, AND THE INCOME RECEIVED.

PURPOSE.	Number.	Meters Set.	Meters Removed.	Amount Received.
Apartment Houses and Tenements .	12	16		\$1,109 43
Bacon Works	3	4		204 81
Bakeries	4	4		178 27
Bleachery and Dye Works	2	2		593 26
Boarding-houses	4	4		110 62
Bottling Works	2	2		37 64
Bowling Alleys	1	1		51 05
Carhouses	3	5		553 63
Churches	1	1		28 00
Clubhouses	2	2	1	15 00
Coal Wharves	2	2		608 53
Colleges	1	10		524 22
Distilleries	1	1		246 20
Electric Light Stations	1	1		1,864 20
Elevator Clocks	1	1		355 84
Factories	19	21	2	2,335 73
Fire Stations	8	8	8	
Foundries	2	2	1	21 28
Glass Works	2	2		228 26
Grain Elevators	1	1		51 52
Greenhouses	1	2		82 04
Halls	1	1		15 00
Hospitals	2	3		259 14
Hotels	4	4		358 51
Machine Shops	1	1		17 92
Milk Business	4	4	1	131 32
Motor Clocks	7	7		89 32
Offices and Stores	25	25	2	1,134 98
Photograph Studios	1	1		171 02
Pickle and Preserving Works	2	2	1	170 36
Poultry Farms	3	3		77 25
Printing Offices	1	1		49 98
Public Buildings	10	10	10	
Pumping Stations	1	1		447 96
Railway Stations	4	4		355 89
Railway Yards	2	2		14,061 24
Schoolhouses	25	25	23	50 00
Slaughtering and Rendering Establish- ments	5	19		19,181 56
Soap Works	2	2		150 65
Stables	47	47	2	1,951 10
Steam Engines	2	2		82 04
Vinegar Works	2	3		74 20
Wood Yards	2	2		175 62
		261	51	\$48,204 61

The quantity of water registered by the above meters and clocks in 1900 was 43,995,448 cubic feet.

Defects in Street Mains.

The following bursts and leaks in street mains occurred in 1900:—

BURSTS.

	SIZE OF MAIN.	NUMBER.
	3"	1
	4"	2
	16"	1
	20"	2
Total		6

LEAKS.

	SIZE OF MAIN. .	NUMBER.
	6"	4
	10"	1
	12"	4
	14"	1
	20"	2
Total		12

Water Services.**SERVICE CONSTRUCTION.**

Two hundred and thirty-eight new service connections were made in 1900, as follows:—

Owners' applications received in 1900	236
Owners' applications received in 1901	1
Transferred from City of Cambridge main in Roseland street	1
	238

The following table shows the sizes and lengths laid:—

	SIZE.	NUMBER.	LENGTH
	1"	4	150 feet
	$\frac{3}{4}$ "	234	8,837 "
Total		238	8,987 feet.

Total number of service pipes laid to January 1, 1901, 10,291.

Total length of service pipe used in making service connections, 65 miles, 668 feet.

SERVICE MAINTENANCE.

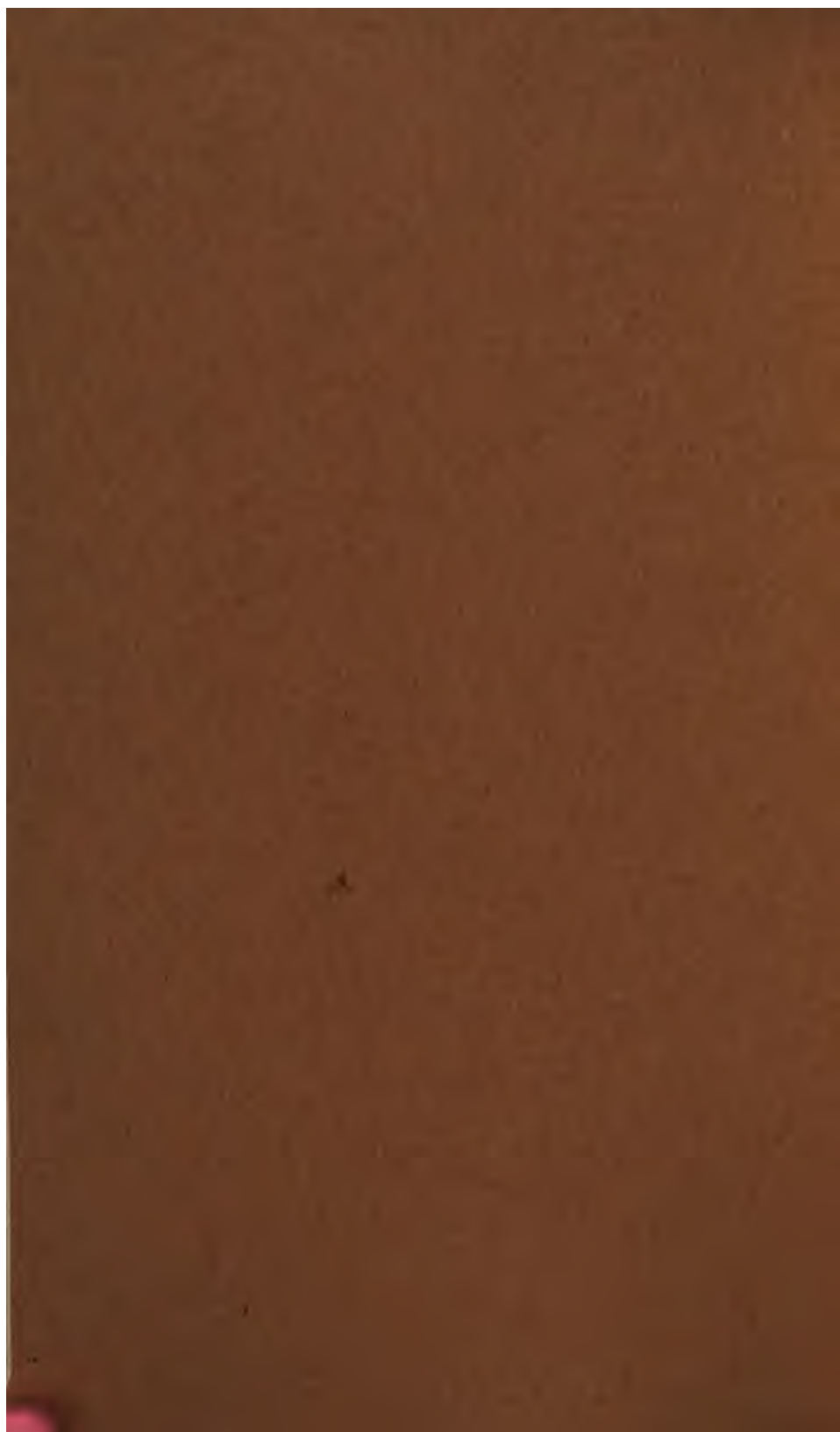
Leaks repaired on service pipes	143
Iron service boxes set	222
New service gates set on old connections	80
Services cleaned of sediment, fish, etc.	52
Services replaced at city's expense on account of defective pipe and fittings	24

2
AUG 12 1905

Annual Report
of the
Water Commissioner
of the
City of Somerville
Massachusetts
1901



VIL Apts



Compliments of

FRANK E. MERRILL,

Water Commissioner.

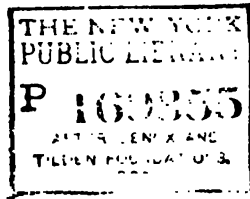


ANNUAL REPORT
OF THE
WATER COMMISSIONER
OF THE
CITY OF SOMERVILLE
MASSACHUSETTS

FOR THE YEAR 1901.



SOMERVILLE JOURNAL PRINT
1902



SOMERVILLE WATER WORKS.

SOMERVILLE, MIDDLESEX CO., MASSACHUSETTS.

Area of city, including land and water, about 4.23 square miles.

Population, 1900 (census), 61,643.

Entire population on line of pipe and supplied with water.

Water works owned by City of Somerville.

Construction commenced in 1868.

**Source of supply : Metropolitan system, taking water of the
Nashua river at Clinton, Mass.**

Mayor

HON. EDWARD GLINES.

Water Commissioner

FRANK E. MERRILL.

Office of the Water Department,

Room 10, City Hall.

Department Buildings and Yard,

Cedar street, near Broadway.

REPORT OF THE WATER COMMISSIONER.

OFFICE OF THE WATER COMMISSIONER, }
January 6, 1902.

To His Honor, the Mayor, and the Board of Aldermen:—

I have the honor to present herewith the twenty-eighth annual report of the Water Department, covering the operations of the year ending December 31, 1901.

It is a pleasure to be able to say that our eighty-seven miles of street mains, carrying water under pressure varying from thirty to one hundred pounds per square inch, have caused very little trouble from bursts and leaks during the past year, and that the condition of our water distribution system was never better than at the present time. The troubles from bursting pipes will not be entirely eliminated, however, until all the old cement-lined mains are removed.

As all the expenses of the department for operation, maintenance, and construction (except house services), including interest and payment of maturing bonds, are paid from the revenue from water rates, the statement of primary interest is naturally that of

Water Income.

Water bills have been issued as follows:—

10,428 "Annual" water bills, amounting to	\$155,359 75
2,079 "Additional" water bills, amounting to	8,711 23
753 "Metered" water bills, amounting to	51,116 54
	\$215,187 52
Abatements made on the above charges	2,845 99
	\$212,341 53

This amount includes:—

Uncollected "Metered" water bills, due	
January 1, 1902	\$13,366 25
Uncollected "Annual" water bills	276 85
Uncollected "Additional" water bills	17 17
	\$13,660 27

and should be reduced by the amount of abatements on water charges of previous years as follows:—

On "Annual" water bills, 1899 account	\$6 65
On "Annual" water bills, 1900 account	12 65
On "Metered" water bills, 1900 account	4 64
	23 94
Amount carried forward	\$212,317 59

Amount brought forward	\$212,317 59
The account has credit for the amount received from the Commonwealth of Massachusetts, distribution of entrance fees, water supplied outside of district, and water furnished water companies, 1901, under Section 3, Chapter 488, Acts 1895	1,815 77
Total amount credited to Water Income account	<u>\$214,133 36</u>

This amount was applied under provisions of the appropriation order of the Board of Aldermen as follows:—

For water works purposes:—

Appropriation for Maintenance	\$30,000 00	
Appropriation for Extension	25,000 00	
Appropriation for Abatements	500 00	
Interest on Water Loan Bonds	8,270 00	
Maturing Water Loan Bonds, Metropolitan Water Works Assessment	32,000 00	
	56,816 76	
	<u>\$152,586 76</u>	

For other municipal purposes:—

Appropriation for Sewers, Maintenance	\$10,350 00	
Interest on Sewer Loan Bonds	6,440 00	
Maturing Sewer Loan Bonds, ...	8,000 00	
	<u>24,790 00</u>	
Reduction of Funded Debt (balance)	36,756 60	
	<u>\$214,133 36</u>	

Amount to reduction of Funded Debt from Water Department:—

Balance of Water Income	\$36,756 60
Balance of Water Maintenance Appropriation	3,120 47
Balance of Water Works Extension Appropriation	107 93
Balance of Appropriation for Abatement	264 97
	<u>\$40,249 97</u>

Water has been furnished without charge for all municipal purposes, the same as during the year 1900. The reduction in water income resulting from this policy is about \$12,000 based on the charges of the year 1899.

There is a further reduction in the water income of 1901 of about \$6,000 resulting from the lowering of the rate for use of hose from \$5.00 to \$3.00. In 1901 there were 3,171 hose assessments paid, in 1900, 2,838, and in 1899, 2,607.

WATER DEPARTMENT.

5

Department Receipts and Disbursements.

WATER MAINTENANCE ACCOUNT.

	Dr.	Cr.
Amount appropriated by City Council from water income		\$30,000 00
Amount transferred from Water Works Extension account		6,000 00
Collections from sundry accounts for labor and materials		14,865 01
Collections from other sources		162 00
Materials furnished service department	\$2,682 30	
Materials furnished construction department	10,138 06	
Labor and materials furnished sundry persons	1,218 45	
Amount expended for labor and materials to be used in maintenance of the water works and renewals of pipe	33,237 49	
Applied to Water Service account	140 24	
Unexpended balance of appropriation	3,120 47	
	<u>\$50,527 01</u>	<u>\$50,527 01</u>

WATER WORKS EXTENSION ACCOUNT.

	Dr.	Cr.
Amount appropriated by City Council from water income		\$25,000 00
Collections from sundry accounts for labor and materials		313 52
Amount transferred to Water Maintenance account	\$6,000 00	
Labor and materials used in extension of the water works	19,205 59	
Unexpended balance of appropriation	107 93	
	<u>\$25,313 52</u>	<u>\$25,313 52</u>

WATER SERVICE ACCOUNT.

	Dr.	Cr.
229 water service assessments		\$4,041 39
Balance from Water Maintenance account, Labor and materials used in water service construction		140 24
	\$4,181 63	
	<u>\$4,181 63</u>	<u>\$4,181 63</u>

REFUND ACCOUNT.

	Dr.	Cr.
Amount appropriated by City Council from water income		\$500 00
Amount refunded to Water Consumers	\$235 03	
Unexpended balance of appropriation	264 97	
	<u>\$500 00</u>	<u>\$500 00</u>

Cost of Water Works.

The total cost of the water works on December 31, 1900, as represented by the expenditures from appropriations for water works extension, was . . .	\$766,484 63
Expended during the year 1901, on extension account . . .	19,205 59
Total expenditures, December 31, 1901 . . .	<u>\$785,690 22</u>

Water Debt.

The indebtedness of the city on account of the water works on December 31, 1900, was \$207,000; this debt has been reduced during the year 1901 by the payments of bonds, maturing July 1 and October 1, to the amount of \$32,000; the indebtedness being now represented by bonds drawing interest as follows:—

\$165,000.00 at 4 per cent. per annum.
10,000.00 at 5½ per cent. per annum.

Total . . \$175,000.00

These bonds become due as follows:—

YEAR.	AMOUNT.	YEAR.	AMOUNT.
1902	\$29,000	1912	\$6,000
1903	23,000	1913	6,000
1904	15,000	1914	6,000
1905	6,000	1915	5,000
1906	16,000	1916	5,000
1907	17,000	1917	5,000
1908	7,000	1918	5,000
1909	6,000	1919	4,000
1910	6,000	1920	2,000
1911	6,000		

The following table, exhibiting the financial condition of the department from its first movements, is presented for reference and comparison:—

WATER DEPARTMENT.

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YEAR.	Water Loan Bonds Issued on Funded Debt Account.	Reduction of Funded Debt by Payments of Water Loan Bonds.	Expenditures for Construction of Water Works.	*Revenue from Water Works.
1869	\$80,000 00		\$92,203 27	\$911 39
1870	60,000 00		66,546 50	1,907 63
1871	60,000 00		43,648 66	3,151 30
1872	90,000 00	\$50,000 00	43,288 33	3,719 91
1873	60,000 00	20,000 00	27,691 26	5,084 97
1874	15,000 00		34,294 06	6,818 20
1875	20,000 00		13,375 76	9,652 37
1876	70,000 00	60,000 00	6,409 49	10,268 06
1877	10,000 00		13,845 74	10,735 90
1878	30,000 00	30,000 00	514 13	11,584 89
1879			791 56	12,341 60
1880	60,000 00	60,000 00		12,999 79
1881	40,000 00	40,000 00		14,697 37
1882	90,000 00	90,000 00		19,354 28
1883	7,500 00	7,500 00		19,661 67
1884	20,000 00	20,000 00		20,085 95
1885	20,000 00	20,000 00		21,542 28
1886	55,500 00	55,500 00		21,444 91
1887	9,000 00	9,000 00		42,650 57
1888	25,000 00	96,500 00	19,338 89	50,419 07
1889	90,000 00	19,000 00	81,117 43	51,470 91
1890	55,000 00	13,000 00	53,411 79	55,879 72
1891	10,000 00	†11,000 00	40,708 48	60,150 80
1892	28,000 00	28,000 00	34,863 17	77,640 91
1893		17,000 00	35,545 30	78,459 73
1894		18,000 00	28,375 67	83,401 30
1895		19,000 00	32,007 44	89,431 46
1896	‡12,000 00	18,500 00	16,631 83	95,719 69
1897		21,000 00	10,000 00	99,688 57
1898		22,000 00	26,970 22	a 200,735 03
1899		32,500 00	19,978 59	b 214,280 83
1900		32,500 00	24,927 06	c 222,322 15
1901		32,000 00	19,205 59	d 212,072 56
	\$1,017,000 00	\$842,000 00	\$785,690 22	\$1,840,285 77

Total issue \$1,017,000 00
Total payments 842,000 00

Present water debt \$175,000 00

* From 1869 to 1886, inclusive, the basis of Somerville's water revenue was as follows: — The entire revenue from sale of water in Somerville was collected by the city of Boston and payments were made to this city on the following sliding scale: —

On annual receipts up to \$20,000.00, Somerville's proportion was 15 per cent.
On annual receipts \$20,000.00 to \$30,000.00, Somerville's proportion was 20 per cent.
" " \$30,000.00 to \$40,000.00, " " " 25 "
" " \$40,000.00 to \$50,000.00, " " " 30 "
" " exceeding \$50,000.00, Somerville's proportion was 40 per cent.

In 1887 the contract was changed so that Somerville should receive 50 per cent. of the revenue, and this contract existed until January 1, 1898, on which date it was annulled, the revenue since that time being collected by the city of Somerville.

† In 1891 \$5 000.00 of Water Loan Bonds were cancelled, City Loan Bonds being substituted for them.

‡ Renewal.

a. Includes amount received from city of Boston for collections of metered water charges for 4th quarter of 1897, but does not include Somerville metered water charges for 4th quarter of 1896.

b. Includes collections of metered water charges for 4th quarter of 1898, but does not include charges for 4th quarter of 1899.

c. Includes collections of metered water charges for 4th quarter of 1899, also amount of charges for 4th quarter of 1901. Does not include credit for water supplied to city departments.

d. Includes metered water charges for 1901 only.

Inspection and Waste.

Ten thousand eight hundred and forty-eight inspections have been made in the annual canvass for water assessments. Increased attention has been given to the subject of waste of water, and the number of defective water fixtures reported indicates an opportunity for householders to perform valuable service in the matter of conserving our present water supply. Two thousand, seven hundred and fifty six defective water fixtures have been discovered, viz. :—

Tanks and water closets	1,944
Faucets	740
Pipes	72

The Metropolitan Water Board calls attention to the fact that the per capita consumption of water in the Metropolitan district has increased forty-nine per cent within the last decade, and the Board is now considering the advisability of metering the water supplied to the several municipalities, hoping thereby to produce a direct incentive for a prevention of the waste.

There is no desire to restrict the legitimate use of water, but on the other hand to furnish an abundance for all domestic and sanitary purposes. It is only the careless and oftentimes wilful waste of water that calls for restriction ; such waste as occurs from defective plumbing fixtures, from constant running of water to prevent freezing, and from other causes, all of which could be remedied by the expenditure of a little care and money on the part of the tenant or owner. For those who are persistently neglectful of their duties in such matters the best remedy seems to be the installation of water meters, and the consequent charge for the actual quantity of water consumed and wasted.

Hydrants, Gates, etc.

It is cause for congratulation that our firemen have not been hampered in their work of extinguishing fires by defective or frozen hydrants.

Great care is exercised, especially throughout the winter season, to keep all fire hydrants in proper working order, and there have been no complaints of improper or insufficient service. All the city fire hydrants receive a careful inspection annually, and are left in proper condition. The hydrant formerly standing in what was called the "island" in Union square has been removed and set in the sidewalk in front of Hill building ; it has also been connected with the high service system.

Old hydrants have been replaced with new ones, and additional hydrants have been set where conditions called for them as well as in several localities suggested by the Chief of the Fire Department.

The tables which follow give details of this work, and show that seventeen hydrants have been moved or abandoned, and

forty-six have been set, making the net increase twenty-nine, and the total number now in the city 926, or one to about every 500 feet of main pipe throughout the city, or, approximately, one to each sixty-seven inhabitants.

In connection with the construction and renewal of pipe lines, sixty-two main gates have been set, and seventeen have been removed, making a net increase of forty-five. The total number in the city is now 1,248. One eight-inch check valve has been set between the high and low service systems in Mt. Vernon avenue.

Eleven blow-offs have been added to the system during the year, making the total number 119.

Seven new waterposts have been set at the request of the Highway Department for street-watering purposes, in the following locations:—

Adams street, near Broadway.
Bonair street, near Wigglesworth street.
Dana street, near Pearl street.
Medford street, near Ward street.
Mt. Vernon street, near Broadway.
Somerville avenue, near Oak square.
Temple street, near Heath street.

The total number of waterposts in the city is sixty-six. The waterpost on Beacon street, formerly standing 160 feet west from Buckingham street, has been moved to thirty-three feet west from Concord avenue.

Renewal of Street Mains.

The removal of the old cement-lined water pipes has made further progress during the year. Between two and three miles of this pipe now remain in use, the oldest being that in portions of Central street which was laid in 1868. There is also cement-lined pipe of considerable age in several other streets which is liable at any time to give out and cause damage.

There has been some hesitation in entering upon certain of these streets to relay the pipes before the danger became actually apparent, on account of the present excellent condition of their roadways, but it is probably better to make the necessary disturbance of the street surface now than to take further chances with the old water mains.

The total number of feet of iron pipe laid during the year in place of the cement-lined pipe was 6,549.

The number of bursts and leaks on the system of distribution mains was fourteen, none of which caused any property damage.

Extension of Street Mains.

No extensive demands have been made during the past year for water mains in undeveloped territory. A large portion of the work on construction account has therefore been in perfecting the

water circulation system of the city. One of the most important portions of this work was the laying of a 12-inch high-service main in Central street, from Highland avenue to Monmouth street, and connecting thereto the water mains in Gibbens street, Cambria street, Westwood road, Monmouth street, Oxford street, Berkeley street, and Avon street, all of which had previously been "dead ends." The old cement-lined main on the easterly side of the street, laid in 1868, is still in service as a circulation pipe on the low-service system, but can, if necessary, be cut off without causing any deprivation of water to houses or fire hydrants. This line of pipe should be retained in service as a cross connection between the southern and northern low-service systems, and should, as soon as practicable, be replaced with an iron main.

The 12-inch high-service pipe line in Highland avenue has been extended from Grove street to Cedar street, and connected there with the Spring-hill high-service system. Davis square now enjoys a high-pressure fire supply, the water pressure at the outlets of the hydrants attached to this line in and near the square being about ninety-five pounds per square inch. In all, nine fire hydrants are connected to this line, four in the immediate vicinity of Davis square and five on Highland avenue.

On account of peculiar difficulties and dangers connected with the construction of the Highland-avenue pipe line, the trench being of considerable depth and but eighteen inches from the rails of an electric car line carrying a heavy traffic, it was deemed advisable to have the excavation and back-filling performed by contract and it was so awarded to Mr. Charles A. Kelley. One of the stipulations of the contract was that only citizens of Somerville should be employed on the work.

Other streets in which new pipe lines have been laid during the year are East Albion street, Evergreen avenue, Heath street, Holyoke road, Josephine avenue, Lowell street, Meacham street, Miller street, Mt. Vernon avenue, Mystic street, Pearson road, Powder House terrace, Pritchard avenue, Rogers avenue, Windom road, and Wyatt circle.

The tables which follow give further details of this work.

The total number of feet of new mains laid in 1901 is 11,652.

The total main pipe mileage of the city is now about eighty-six miles, 2,919 feet.

Drinking Fountains and Troughs.

A new ice-water drinking fountain of ornamental design has been set in front of the Masonic building in Gilman square, and was well patronized and appreciated during the heated term. Three drinking fountains of the bubbling type have also been set, one each in Lincoln park, Franklin park, and Belmont park.

The ornamental horse trough in Gilman square has received some heavy blows from passing teams, and has been considerably

damaged thereby; its light structure is hardly fitted for a location on a main thoroughfare where it stands as a butt for the poles of heavy teams handled by careless drivers.

The old drinking fountain on Highland avenue, in front of City Hall annex, was removed on account of its defective condition.

There are now in the city six drinking fountains, four horse troughs, and one combination fountain.

Service Department.

Two hundred and twenty-nine new service pipes were laid in 1901, of a total length of 8,733 feet. The total mileage of service pipes in the city is about 66 miles 4,121 feet, and the number of house connections 10,520.

A prominent feature of the service department work is found in the repair and renewal of old service pipes which are gradually becoming corroded and filled up, in setting stop gates and gate boxes, and in the renewal and re-adjustment to grade of old boxes.

Two cases of electrolytic injury to service pipes have occurred during the year, one in Webster avenue opposite number 79, the other in Willow avenue opposite number 130. Both these cases have been brought to the attention of our Commissioner of Electric Lines and Lights and of the officers of the Boston Elevated Railway Company.

Meter Department.

But few new meters have been set during the year.

At the beginning of the year the number of meters in operation was	202
The number of operating meters added during the year was	30
Meters removed during the year	8
Total number of meters in operation December 31, 1901	224
Motor and elevator clocks in operation December 31, 1901	8

METERS IN USE DECEMBER 31, 1901.

	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	1 $\frac{1}{2}$ "	2"	3"	4"	6"	Total.
Empire . .	1								1
Crown . .	6	6	4	1	1	1	1	1	21
Gem . .							1		1
Hersey . .			7	1	1	3			12
Hersey Disc	1		6	1	2				10
Torrent . .								1	1
Trident . .	41	41	20	5	6	1	1		115
Union . .	6	8	9	2	5	1	2		33
Union Special		11	6						17
Lambert . .	13								13
Totals . .	68	66	52	10	15	6	5	2	224

There was consumed in 1901, 47,918,011 feet, or about 359,385,082 gallons of metered water for which the city received \$51,116.54.

Summary of Pipes and Fixtures.

Following is a general summary of the pipes and fixtures of the water system, December 31, 1901:—

Number of feet of main pipe (approximately) .	456,999
Number of feet of service pipe (approximately),	352,601
Number of service connections (approximately),	10,520
Number of public fire hydrants	926
Number of private fire hydrants	42
Number of gates	1,248
Number of check valves	7
Number of meters	224
Number of waterposts	118
Number of blow-offs	119

The annual inventory of stock on hand, tools and machinery, teams and stable equipment, pumping apparatus, and furniture shows a valuation of \$27,718.83; the land and buildings of the department are assessed at a valuation of \$32,000, and the general distribution system of the water works has an estimated valuation of \$825,000.

Metropolitan Water Works.

New legislation has been obtained by the Metropolitan Water Board by which the full annual cost of the works under their charge is assessed on the municipalities in the district. Under this system the assessment levied on this city in 1901 was \$56,816.76, the amount previously estimated by the Board having been \$61,600.00. Somerville's proportion of the entire annual requirements on account of the Metropolitan water works is about four per cent. under the present valuation and population basis. The water furnished has thus far been of abundant quantity and, for the most part, of good quality.

The Metropolitan Water and Sewerage Board has, however, deemed it advisable to restrict certain privileges which have heretofore been enjoyed in portions of the water district.

Under date of August 3, 1901, the Board served notice that, under the authority granted by Section 10 of Chapter 488 of the Acts of 1895, which provides that the Board may take all proper measures to prevent the improper use or waste of water, the Board had adopted regulations regarding the use of hand hose and lawn sprinklers in the several municipalities comprising the Metropolitan water district, to be enforced throughout the entire district on and after January 1, 1902, of which the following is a copy:—

Regulations for the Use of Hand Hose in the Metropolitan Water District.

Adopted by the Metropolitan Water and Sewerage Board August 2, 1901.

"The use of water through hand hose, on premises where the water supply is not metered, shall be restricted to two hours in each day, such use to be had between the hours of 5 and 8 A. M. and 5 and 8 P. M.

"The hose must be used with a nozzle not exceeding three-sixteenths of an inch in diameter, and while so used must be held in the hand of a person on the premises of the water taker.

"On premises where the water supply is metered, the above restrictions do not apply, and a lawn sprinkler may be attached to the hose."

Appendix.

Further details concerning the year's work of the department, locations of hydrants and other fixtures of the water works, appear in the tables appended hereto.

Respectfully submitted,

FRANK E. MERRILL,

Water Commissioner.

Conwell avenue, 20 feet west from Curtis street.
Conwell avenue, 460 feet west from Curtis street.
Conwell street, 6 feet south from Highland avenue.
Conwell street, 3 feet north from Francis street.
Cooney street, 98 feet north from Line street.
Cottage avenue, 206 feet west from Russell street.
Craigie street, 216 feet south from Summer street.
Craigie street, 232 feet north from Kimball street.
Craigie street, 77 feet south from Kimball street.
Craigie street, 126 feet north from Somerville avenue.
Crescent street, 80 feet south from Hadley place.
Crocker street, 4 feet south from Highland avenue.
Crocker street, 8 feet north from Crown street.
Cross street, 6 feet north from Pearl street.
Cross street, 32 feet north from Cross-street place.
Cross street, 62 feet north from Flint street.
Cross street, 16 feet north from Gilman street.
Cross street, 13 feet south from Auburn avenue.
Cross street, 39 feet north from Alston street.
Curtis avenue, 206 feet west from Curtis street.
Curtis street, 6 feet north from Broadway.
Curtis street, 3 feet south from Electric avenue.
Curtis street, 137 feet north from Ware street.
Curtis street, 3 feet south from Raymond avenue.
Curtis street, 34 feet south from Professors' row.
Curtis street, 225 feet north from Professors' row.
Cutter avenue, 11 feet south from Highland avenue.
Cutter square, 95 feet west from Cutter avenue.
Cutter street, 95 feet south from Broadway.
Cutter street, 444 feet south from Broadway.
Dane avenue, 162 feet west from Leland street.
Dane avenue, 169 feet east from Dane street.
Dane street, 9 feet north from Tyler street.
Dane street, 260 feet south from Skehan street.
Dane street, 55 feet north from Skehan street.
Dartmouth street, 184 feet south from Broadway.
Dartmouth street, 200 feet north from Evergreen avenue.
Dartmouth street, 53 feet south from Evergreen avenue.
Dartmouth street, 171 feet north from Medford street.
Davis square, 45 feet east from Day street.
Day street, 10 feet south from Davis square.
Day street, opposite Herbert street.
Day street, 195 feet south from Herbert street.
Day street, 4 feet north from Orchard street.
Dell street, 255 feet west from Glen street.
Delaware street, 246 feet east from Aldrich street.
Derby street, 400 feet east from Temple street.
Dickinson street, 20 feet east from Beacon street.
Dickinson street, 7 feet north from Leon street.
Dover street, 22 feet south from Davis square.
Dover street, 203 feet south from Davis square.
Dover street, 312 feet north from Orchard street.
Dover street, 3 feet north from Orchard street.
Durham street, opposite Skehan street.
Durham street, 5 feet west from Hanson street.
Eastman place, 279 feet south from Highland avenue.
Edmands street, 15 feet south from Broadway.
Ellsworth street, 7 feet west from Rush street.
Elm street, 59 feet west from Craigie street.
Elm street, 17 feet west from Porter street.

Elm street, 28 feet east from Linden avenue.
Elm street, 11 feet east from Mossland street.
Elm street, 9 feet west from Cedar street.
Elm street, 153 feet east from Cherry street.
Elm street, 110 feet west from Cherry street.
Elm street, 14 feet east from Burnside avenue.
Elm street, 104 feet east from Willow avenue.
Elm street, 20 feet east from St. James avenue.
Elm street, 9 feet west from Elston street.
Elm street, 90 feet west from Windom street.
Elm street, 25 feet west from Russell street.
Elm street, 11 feet west from Grove street.
Elm street, 82 feet west from Chester street.
Elmwood street, 9 feet south from Holland street.
Elmwood street, 300 feet east from Harrison street.
Elmwood street, 85 feet west from Harrison street.
Eliot street, 3 feet east from Park street.
Endicott avenue, 422 feet south from Broadway.
Evergreen avenue, 8 feet east from School street.
Evergreen avenue, 114 feet east from Sycamore street.
Everett avenue, 5 feet west from Cross street.
Everett avenue, 9 feet east from Dana street.
Everett avenue, 449 feet west from Cross street.
Everett street, opposite Emerson street.
Fairlee street, 134 feet west from Cherry street.
Fairmount avenue, 280 feet west from Curtis street.
Fairmount avenue, opposite Watson street.
Farm lane, 70 feet north from Sumner street.
Farm lane, 67 feet south from Roberts street.
Farragut avenue, 258 feet south from Broadway.
Farragut avenue, 537 feet south from Broadway.
Fenwick street, 40 feet north from Broadway.
Fiske avenue, 120 feet east from Hinckley street.
Fitchburg street, 395 feet east from Linwood street.
Flint street, 18 feet east from Flint avenue.
Flint street, 59 feet east from Cross street.
Flint street, 30 feet west from Franklin street.
Florence street, 206 feet south from Perkins street.
Florence street, 7 feet south from Pearl street.
Florence street, 453 feet north from Washington street.
Forster street, opposite Tennyson street.
Fosket street, 6 feet west from Bay State avenue.
Francesca avenue, 305 feet east from College avenue.
Francesca avenue, 7 feet west from Liberty avenue.
Franklin street, 14 feet north from Arlington street.
Franklin street, 76 feet south from Webster street.
Franklin street, 156 feet south from Pearl street.
Franklin street, 80 feet south from Oliver street.
Franklin street, 87 feet south from Palmer avenue.
Franklin street, 29 feet north from Washington street.
Fremont street, 82 feet north from Main street.
Fremont street, 343 feet north from Main street.
Fremont street, opposite Meacham street.
Fremont street, 287 feet north from Meacham street.
Fremont street, 25 feet north from East Albion street.
Frost avenue, 75 feet east from Sherman street.
Fountain avenue, 280 feet west from Glen street.
Garden court, 357 feet south from Somerville avenue.
Garfield avenue, 7 feet north from Broadway.
Garfield avenue, 24 feet south from Mystic avenue.
Garrison avenue, 235 feet south from Broadway.

LOCATIONS OF NEW MAINS LAID, LENGTH AND SIZE, NUMBER OF GATES, HYDRANTS, ETC., SET IN 1901. — Concluded.

NAME OF STREET.	FROM	TO	PIPE LAID.		GATES SET.		HYDRANTS SET.		BLOW-OFFS.		CHECK VALVES.		WATER POSTS.	DRINKING FOUNTAINS, TROUGH.
			Size.	No. Feet.	Size.	No.	Kind.	No.	Size.	No.	Size.	No.		
Powder house ter.	Main in Liberty ave.	Brought forward		9,354		34		23		8		1	5	3
Pritchard ave.	Con. with 6" pipe	Main in Kidder ave.	6"	615	6"									
Rogers ave.	Con. with 10" near Broadway	Dead end	6"	129		2	Mathews	1						
Rosenville ave.	Waterpost	Con. with 6" near Frederick ave.	6"	691	2"	1	Holyoke	2					1	
Somersville park	Hydrant		2"	31			Mathews	1						
Standpipe park	Drinking fountain		6"	36										1
Summer st.	Main in Farm lane	Con. with 2" pipe	6"	30	6"	1								
Temple st.	Waterpost		2"	27	2"	1			8"	1			1	
Washington st.	Blow-off		6"	16	8"	1	Mathews	1						
Washington st.	Hydrant		6"	10					6"	2				
Washington st.	Blow-off		6"	188	10"	2								
Washington st.	Gate	Dead end	6"	269	6"	1	Chapman	1						
Windsor road	Con. with Columbus ave.	Con. with 6" pipe	6"	8	6"	1	Mathews	1						
Windsor road	Hydrant	Con. with 2" pipe	6"	33	6"	1	B. M.	1						
Winslow ave.	Con. with Clifton st.		2"	215	4"	1								
Wyatt circle	Main in Wyatt st.							31		11		1	7	4
		Total		11,682		46								

Highland avenue, 2 feet east from Porter street.
Highland avenue, 212 feet east from Cedar street.
Highland avenue, 63 feet east from Cherry street.
Highland avenue, 35 feet east from Hancock street.
Highland avenue, 4 feet west from Hancock street.
Highland avenue, 44 feet east from Willow avenue.
Highland avenue, 3 feet west from Willow avenue.
Highland avenue, 59 feet east from West street.
Highland avenue, 36 feet west from West street.
Highland avenue, 36 feet east from Grove street.
Highland avenue, 6 feet west from Grove street.
Highland avenue, 218 feet west from Grove street.
Highland avenue, 64 feet east from Davis square.
Hinckley street, 106 feet south from Broadway.
Holland street, 39 feet west from Dover street.
Holland street, 8 feet west from B. & M. R. R. crossing.
Holland street, 5 feet east from Jay street.
Holland street, 3 feet east from Paulina street.
Holland street, 94 feet east from Claremon street.
Homer square, 200 feet west from Bonner avenue.
Houghton street, 82 feet west from Prospect street.
Houghton street, 3 feet west from Bolton street.
Houghton street, 10 feet west from Oak street.
Hudson street, 12 feet east from Waldo street.
Hudson street, opposite Benton road.
Hudson street, 294 feet east from Lowell street.
Hudson street, 362 feet west from Lowell street.
Hudson street, 675 feet west from Lowell street.
Ibbetson street, 256 feet north from Somerville avenue.
Ibbetson street, 6 feet south from Kimball street.
Irving street, 6 feet south from Broadway.
Irving street, 285 feet south from Broadway.
Irving street, 542 feet north from Holland street.
Irving street, 190 feet north from Holland street.
James street, 100 feet north from Pearl street.
Jaques street, 10 feet west from Chauncey avenue.
Jaques street, 8 feet west from Grant street.
Jaques street, 360 feet east from Temple street.
Jaques street, 185 feet west from Temple street.
Jaques street, 410 feet east from Bond street.
Jasper street, 5 feet south from Virginia street.
Jay street, 82 feet north from Howard street.
Jenny Lind avenue, 224 feet south from Broadway.
Jenny Lind avenue, 16 feet north from Vernon street.
Jenny Lind avenue, 320 feet north from Vernon street.
Jenny Lind avenue, 467 feet north from Vernon street.
Joseph street, 100 feet west from Adrian street.
Josephine avenue, 397 feet north from Morrison avenue.
Josephine avenue, 213 feet south from Broadway.
Joy street, 34 feet south from Washington street.
Joy street, 502 feet south from Washington street.
Joy street, 271 feet north from Poplar street.
Kensington avenue, 6 feet north from Broadway.
Kent court, 205 feet west from Kent street.
Kidder avenue, 346 feet east from College avenue.
Kingman court, 282 feet south from Washington street.
Kingston street, 95 feet west from Thorndike street.
Knowlton street, opposite Morton street.
Lake street, 220 feet west from Hawkins street.
Lake street, 4 feet east from Carlton street.
Laurel street, 50 feet north from Greene street.

Laurel street, 8 feet north from Park place.
Lawrence street, 9 feet south from Richardson street.
Leland street, 14 feet south from Dane avenue.
Lexington avenue, 3 feet west from Hancock street.
Liberty avenue, 3 feet north from Kidder avenue.
Liberty avenue, 12 feet north from Mallett street.
Lincoln street, 174 feet north from Perkins street.
Lincoln avenue, 206 feet west from Mt. Vernon street.
Linden street, 31 feet north from Charlestown street.
Linden street, 237 feet south from Somerville avenue.
Linden avenue, 118 feet south from Gilson terrace.
Linden avenue, 255 feet south from Olive avenue.
Linden avenue, 30 feet north from Olive avenue.
Line street, 272 feet west from Cooney street.
Line street, 100 feet west from Smith avenue.
Linwood street, 385 feet south from Washington street.
Linwood street, 48 feet south from Lamson court.
Linwood street, 52 feet south from London street.
Linwood street, 2 feet south from Linwood place.
London street, 383 feet east from Linwood street.
Loring street, 276 feet north from Somerville avenue.
Lovell street, 41 feet south from Electric avenue.
Lowell street, 1 foot north from Fiske avenue.
Lowell street, 183 feet south from Richardson street.
Lowell street, opposite Vernon street.
Lowell street, 3 feet south from Princeton street.
Lowell street, 163 feet south from Highland avenue.
Lowell street, 53 feet north from Crown street.
Lowell street, 351 feet south from Summer street.
Lowell street, 16 feet north from Kimball street.
Madison street, 103 feet west from School street.
Madison street, 467 feet west from School street.
Main street, junction with Broadway.
Main street, 112 feet west from Mt. Vernon avenue.
Main street, west corner of Moreland street.
Mansfield street, 190 feet north from Somerville avenue.
Mansfield street, 189 feet south from Washington street.
Maple avenue, 294 feet east from School street.
Maple street, 7 feet south from Jackson street.
Maple street, 87 feet north from Poplar street.
Marion street, 31 feet south from Adrian street.
Marion street, 74 feet north from Wyatt street.
Marshall street, 80 feet south from Stickney avenue.
Marshall street, 30 feet north from Stickney avenue.
Marshall street, opposite Howe street.
Marshall street, 5 feet north from Evergreen avenue.
Marshall street, 104 feet south from Mortimer place.
Marshall street, 109 feet north from Oakland avenue.
Malloy court, 16 feet south from Somerville avenue.
Meacham road, 4 feet north from Orchard street.
Meacham road, 97 feet north from Kingston street.
Meacham street, 14 feet west from Moreland street.
Mead street, 48 feet east from Claremon street.
Medford street, 50 feet north from Hennessey court.
Medford street, 56 feet north from Lowell street.
Medford street, 14 feet north from Jenny Lind avenue.
Medford street, 16 feet south from Bartlett street.
Medford street, 6 feet north from Central street.
Medford street, 19 feet south from Sycamore street.
Medford street, 15 feet south from Lee street.
Medford street, 46 feet south from Thurston street.

Medford street, 31 feet south from Dartmouth street.
Medford street, 5 feet north from School street.
Medford street, 171 feet north from Marshall street.
Medford street, 266 feet north from Walnut street.
Medford street, 17 feet south from Walnut street.
Medford street, 291 feet south from Walnut street.
Medford street, 8 feet south from Greenville street.
Medford street, 13 feet north from Prospect-hill avenue.
Medford street, 240 feet south from Prospect-hill avenue.
Medford street, opposite Chester avenue.
Medford street, 216 feet south from Washington street.
Medford street, 69 feet north from Jackson street.
Medford street, 21 feet north from Somerville avenue.
Medford street, 382 feet south from Somerville avenue.
Medford street, 220 feet north from Ward street.
Medford street, 55 feet north from Ward street.
Medford street, 91 feet south from Ward street.
Medford street, 46 feet south from South street.
Medford street, 17 feet south from Warren street.
Medford street, 220 feet south from Warren street.
Melrose street, 610 feet north from Mystic avenue.
Merriam street, 25 feet north from Charlestown street.
Miller street, 300 feet west from Sacramento street.
Miner street, 137 feet north from Vernon street.
Mondamin court, 272 feet west from Ivaloo street.
Monmouth street, 7 feet west from Central street.
Monmouth street, 156 feet east from Harvard street.
Montrose street, 10 feet east from Sycamore street.
Montrose street, 287 feet east from Sycamore street.
Montrose street, 259 feet west from School street.
Moore street, 21 feet north from Mead street.
Moore street, 22 feet south from Holland street.
Moore street, 335 feet south from Holland street.
Moreland street, 345 feet north from Meacham street.
Moreland street, 2 feet south from East Albion street.
Morgan street, 125 feet west from Park street.
Morrison avenue, 124 feet west from Cedar street.
Morrison avenue, 44 feet east from Pearson avenue.
Morrison avenue, 124 feet east from Rogers avenue.
Morrison avenue, 13 feet west from Newberne street.
Morrison avenue, 183 feet west from Clifton street.
Morrison avenue, 33 feet west from Grove street.
Mossland street, 114 feet north from Somerville avenue.
Munroe street, 203 feet east from Walnut street.
Munroe street, 289 feet west from Boston street.
Murdock street, 204 feet east from Cedar street.
Murdock street, 610 feet east from Cedar street.
Mt. Vernon avenue, 156 feet north from Heath street.
Mt. Vernon avenue, 38 feet south from Heath street.
Mt. Vernon street, 246 feet north from Washington street.
Mt. Vernon street, 8 feet north from Pearl street.
Mt. Vernon street, 7 feet south from Perkins street.
Mt. Vernon street, 11 feet south from Lincoln avenue.
Mt. Vernon street, 5 feet south from Broadway.
Mt. Pleasant street, 140 feet south from Broadway.
Mt. Pleasant street, 135 feet north from Perkins street.
Myrtle street, 218 feet north from Washington street.
Myrtle street, 460 feet north from Washington street.
Myrtle street, 74 feet south from Pearl street.
Myrtle street, 219 feet north from Pearl street.
Mystic avenue, 90 feet east from Union street.

Mystic avenue, 3 feet west from Union street.
Mystic avenue, 438 feet east from Austin street.
Mystic avenue, 11 feet west from Chauncey avenue.
Mystic avenue, 60 feet west from Temple street.
Mystic avenue, 800 feet east from Moreland street.
Mystic avenue, 544 feet east from Moreland street.
Mystic avenue, 241 feet east from Moreland street.
Mystic street (Ward 1), 148 feet north from Benedict street.
Mystic street (Ward 2), 160 feet south from Washington street.
Nashua street, 190 feet south from Wilton street.
Newbury street, 15 feet south from Holland street.
Newbury street, 260 feet south from Holland street.
Newbury street, 558 feet south from Holland street.
Newbury street, 777 feet south from Holland street.
Newbury street, 200 feet north from Cambridge line.
New Cross street, 114 feet north from Broadway.
Newton street, 9 feet west from Joseph street.
Newton street, 9 feet east from Clark street.
Norfolk street, 27 feet south from Webster avenue.
Norfolk street, 227 feet south from Webster avenue.
North street, 18 feet north from Broadway.
North street, 453 feet north from Raymond avenue.
North street, 190 feet north from city bound No. 17.
North Union street, 287 feet north from Mystic avenue.
Oak street, 8 feet west from Prospect street.
Oak street, 315 feet north from Houghton street.
Oakland avenue, 109 feet west from Marshall street.
Oliver street, 191 feet east from Cross street.
Oliver street, 15 feet east from Glen street.
Oliver street, 7 feet west from Franklin street.
Orchard street, 8 feet west from Russell street.
Orchard street, west corner Milton street.
Orchard street, 9 feet east from Chester street.
Otis street, 12 feet west from Cross street.
Otis street, 440 feet west from Cross street.
Otis street, 9 feet east from Dana street.
Otis street, 6 feet east from Wigglesworth street.
Oxford street, 280 feet west from School street.
Oxford street, 46 feet east from Trull lane.
Oxford street, 237 feet west from Hersey street.
Park avenue, 83 feet west from College avenue.
Park avenue, 10 feet west from Chandler street.
Park street, opposite Allen court.
Park street, 187 feet north from Beacon street.
Park street, 69 feet south from Somerville avenue.
Partridge avenue, 5 feet south from Broadway.
Partridge avenue, 26 feet north from Medford street.
Partridge avenue, 117 feet south from Medford street.
Partridge avenue, 421 feet south from Medford street.
Partridge avenue, 276 feet north from Vernon street.
Paulina street, 184 feet north from Holland street.
Paulina street, 288 feet south from Broadway.
Paulina street, 5 feet south from Broadway.
Pearl street, 50 feet west from Crescent street.
Pearl street, 7 feet north from Pinckney street.
Pearl street, 60 feet west from Hillside avenue.
Pearl street, 15 feet east from Delaware street.
Pearl street, 9 feet west from Glen street.
Pearl street, 30 feet west from Dana street.
Pearl street, 1 foot west from Wigglesworth street.

Pearl street, 6 feet west from Walnut street.
Pearl street, 72 feet east from Bradley street.
Pearl street, 110 feet east from Marshall street.
Pearson road, 127 feet north from Broadway.
Pembroke street, 14 feet east from Tennyson street.
Perkins street, opposite Myrtle street.
Perkins street, 78 feet east from Florence street.
Perkins street, 24 feet east from Pinckney street.
Perkins street, 56 feet east from Perkins place.
Perkins street, 21 feet east from Mt. Pleasant street.
Perry street, 324 feet south from Washington street.
Pinckney street, 11 feet north from Washington street.
Pinckney street, 330 feet south from Pearl street.
Pinckney street, 203 feet north from Pearl street.
Pinckney street, 71 feet south from Pearl street.
Pitman street, 180 feet west from Beech street.
Pleasant avenue, 256 feet west from Walnut street.
Poplar street, 21 feet west from Joy street.
Porter street, 1 foot north from Mountain avenue.
Porter street, 282 feet south from Summer street.
Porter street, 24 feet north from Williams court.
Porter street, 8 feet north from Parker place.
Prescott street, 330 feet south from Highland avenue.
Prescott street, 586 feet south from Highland avenue.
Prescott street, 257 feet north from Summer street.
Preston road, 350 feet west from School street.
Pritchard avenue, 255 feet north from Morrison avenue.
Professors' row, 39 feet east from College avenue.
Professors' row, 158 feet west from Boston avenue.
Professors' row, 126 feet west from College avenue.
Professors' row, 291 feet west from College avenue.
Professors' row, 548 feet east from Packard avenue.
Professors' row, 156 feet east from Packard avenue.
Professors' row, 3 feet west from Packard avenue.
Professors' row, 296 feet west from Packard avenue.
Professors' row, 113 feet east from Curtis street.
Prospect-hill avenue, 10 feet north from Munroe street.
Prospect street, 135 feet north from Bennett street.
Prospect street, 35 feet south from Concord avenue.
Prospect street, 185 feet south from Oak street.
Prospect street, 403 feet south from Oak street.
Prospect street, 63 feet north from Houghton street.
Putnam street, 116 feet south from Highland avenue.
Putnam street, 420 feet south from Highland avenue.
Putnam street, 612 feet north from Summer street.
Putnam street, 308 feet north from Summer street.
Quincy street, 91 feet north from Somerville avenue.
Quincy street, 381 feet north from Somerville avenue.
Quincy street, 26 feet south from Summer street.
Raymond avenue, 728 feet west from Curtis street.
Richardson street, 11 feet west from Nashua street.
Richdale avenue, opposite Thurston street.
Robinson street, 325 feet west from Central street.
Rogers avenue, 369 feet south from Broadway.
Rogers avenue, 257 feet north from Frederick avenue.
Rogers avenue, 88 feet south from Frederick avenue.
Rogers avenue, 255 feet north from Morrison avenue.
Rossmore street, 244 feet south from Washington street.
Rush street, 84 feet south from Pearl street.
Rush street, 11 feet north from Pearl street.
Rush street, 128 feet north from Brook street.

Boston street, 6 feet north from Munroe street.
Bow street, 102 feet north from Warren avenue.
Bow street, 23 feet west from Wesley park.
Bow street, 25 feet east from Bow-street place.
Bow street, 74 feet north from Walnut street.
Bowdoin street, 65 feet north from Fremont avenue.
Bradley street, 26 feet south from Veazie street.
Brastow avenue, 202 feet east from Porter street.
Brastow avenue, 115 feet west from Lowell street.
Broadway, 50 feet east from Mt. Pleasant street.
Broadway, 20 feet west from George street.
Broadway, 21 feet west from Broadway place.
Broadway, 83 feet east from Cutter street.
Broadway, 7 feet east from Glen street.
Broadway, 21 feet east from Rush street.
Broadway, 15 feet west from Cross street.
Broadway, 7 feet west from Autumn street.
Broadway, 6 feet west from Montgomery avenue.
Broadway, 33 feet west from Walnut street.
Broadway, 4 feet east from Sargent avenue.
Broadway, 3 feet west from Melvin street.
Broadway, 157 feet west from Grant street.
Broadway, 117 feet east from Marshall street.
Broadway, 62 feet west from Marshall street.
Broadway, 3 feet west from School street.
Broadway, corner Thurston street.
Broadway, 209 feet east from Central street.
Broadway, 104 feet west from Norwood avenue.
Broadway, 288 feet east from Cedar street.
Broadway, opposite Cedar street.
Broadway, 5 feet east from Wilson avenue.
Broadway, 252 feet west from Wilson avenue.
Broadway, 115 feet west from Rogers avenue.
Broadway, 236 feet west from Liberty avenue.
Broadway, 175 feet west from College avenue.
Broadway, 6 feet west from Billingham street.
Broadway, 9 feet west from Packard avenue.
Broadway, 32 feet east from Westminster street.
Broadway, 237 feet east from Endicott avenue.
Broadway, 6 feet west from Endicott avenue.
Broadway, 9 feet west from Garrison avenue.
Broadway, 330 feet west from Waterhouse street.
Broadway park, near the pond.
Brook street, 18 feet west from Rush street.
Browning road, 302 feet west from Sycamore street.
Browning road, 136 feet east from Central street.
Buckingham street, 2 feet south from Dimick street.
Burnside avenue, 259 feet north from Elm street.
Burnside avenue, 120 feet south from Summer street.
Cambria street 131 feet west from Central street.
Cameron avenue, 166 feet south from Holland street.
Cameron avenue, opposite Mead street.
Cameron avenue, 26 feet south from Glendale avenue.
Campbell park, 258 feet west from Meacham road.
Cedar street, 226 feet south from Sartwell avenue.
Cedar street, 98 feet north from Sartwell avenue.
Cedar street, 61 feet north from Hall street.
Cedar street, 22 feet south from Highland avenue.
Cedar street, 12 feet north from Highland avenue.
Cedar street, 10 feet north from Albion street.

Cedar street, 124 feet south from Warwick street.
Cedar street, 50 feet north from Clyde street.
Cedar street, 24 feet south from Murdock street.
Cedar street, 270 feet south from Broadway.
Central street, 50 feet south from Broadway.
Central street, 6 feet north from Forster street.
Central street, 9 feet north from Vernon street.
Central street, 187 feet south from Vernon street.
Central street, 6 feet north from Albion street.
Central street, 9 feet south from Highland avenue.
Central street, 23 feet south from Avon street.
Central street, 14 feet south from Summer street.
Chandler street, 16 feet south from Broadway.
Chandler street, 206 feet north from Park avenue.
Chapel street, 14 feet east from Chandler street.
Charles street, 183 feet south from Washington street.
Charnwood road, 79 feet west from Hancock street.
Chauncey avenue, 11 feet north from Broadway.
Chauncey avenue, 437 feet south from Mystic avenue.
Cherry street, 7 feet south from Sartwell avenue.
Cherry street, 254 feet north from Sartwell avenue.
Cherry street, 252 feet north from Summer street.
Cherry street, 26 feet south from Highland avenue.
Chester street, 15 feet north from Chester place.
Chestnut street, 480 feet south from Poplar street.
Chestnut street, 246 feet south from Poplar street.
Church street, 9 feet south from Summer street.
Church street, 300 feet south from Summer street.
Church street, 29 feet north from Somerville avenue.
Church street, 16 feet south from Somerville avenue.
Claremon street, 255 feet south from Holland street.
Clarendon avenue, 253 feet south from Broadway.
Clarendon avenue, opposite house No. 66.
Clarendon avenue, near Cambridge line.
Clark street, 200 feet west from Newton street.
Clark street, 412 feet west from Newton street.
Clyde street, 250 feet east from Cedar street.
Clyde street, opposite Murdock street.
Columbia street, 3 feet south from Beach avenue.
Columbia street, 8 feet south from Columbia court.
College avenue, 12 feet north from Winter street.
College avenue, 6 feet south from Morrison avenue.
College avenue, 8 feet south from Hall avenue.
College avenue, 53 feet west from Francesca avenue.
College avenue, opposite Kenwood street.
College avenue, 100 feet west from Broadway.
College avenue, 405 feet north from Broadway.
College avenue, 720 feet north from Broadway.
Columbus avenue, 150 feet east from Bonner avenue.
Columbus avenue, 118 feet west from Bonner avenue.
Columbus avenue, 35 feet west from Stone avenue.
Columbus avenue, 8 feet east from Walnut street.
Concord avenue, 154 feet west from Prospect street.
Concord avenue, 76 feet east from Concord square.
Concord avenue, on east line of Knapp school.
Concord avenue, 313 feet east from Springfield street.
Concord avenue, 24 feet east from Springfield street.
Concord avenue, 7 feet east from Marion street.
Concord avenue, 6 feet south from Hammond street.
Concord avenue, 20 feet east from Wyatt street.

Conwell avenue, 20 feet west from Curtis street.
Conwell avenue, 460 feet west from Curtis street.
Conwell street, 6 feet south from Highland avenue.
Conwell street, 3 feet north from Francis street.
Cooney street, 98 feet north from Line street.
Cottage avenue, 206 feet west from Russell street.
Craigie street, 216 feet south from Summer street.
Craigie street, 232 feet north from Kimball street.
Craigie street, 77 feet south from Kimball street.
Craigie street, 126 feet north from Somerville avenue.
Crescent street, 80 feet south from Hadley place.
Crocker street, 4 feet south from Highland avenue.
Crocker street, 8 feet north from Crown street.
Cross street, 6 feet north from Pearl street.
Cross street, 32 feet north from Cross-street place.
Cross street, 62 feet north from Flint street.
Cross street, 16 feet north from Gilman street.
Cross street, 13 feet south from Auburn avenue.
Cross street, 39 feet north from Alston street.
Curtis avenue, 206 feet west from Curtis street.
Curtis street, 6 feet north from Broadway.
Curtis street, 3 feet south from Electric avenue.
Curtis street, 137 feet north from Ware street.
Curtis street, 3 feet south from Raymond avenue.
Curtis street, 34 feet south from Professors' row.
Curtis street, 225 feet north from Professors' row.
Cutter avenue, 11 feet south from Highland avenue.
Cutter square, 95 feet west from Cutter avenue.
Cutter street, 95 feet south from Broadway.
Cutter street, 444 feet south from Broadway.
Dane avenue, 162 feet west from Leland street.
Dane avenue, 169 feet east from Dane street.
Dane street, 9 feet north from Tyler street.
Dane street, 260 feet south from Skehan street.
Dane street, 55 feet north from Skehan street.
Dartmouth street, 184 feet south from Broadway.
Dartmouth street, 200 feet north from Evergreen avenue.
Dartmouth street, 53 feet south from Evergreen avenue.
Dartmouth street, 171 feet north from Medford street.
Davis square, 45 feet east from Day street.
Day street, 10 feet south from Davis square.
Day street, opposite Herbert street.
Day street, 195 feet south from Herbert street.
Day street, 4 feet north from Orchard street.
Dell street, 255 feet west from Glen street.
Delaware street, 246 feet east from Aldrich street.
Derby street, 400 feet east from Temple street.
Dickinson street, 20 feet east from Beacon street.
Dickinson street, 7 feet north from Leon street.
Dover street, 22 feet south from Davis square.
Dover street, 203 feet south from Davis square.
Dover street, 312 feet north from Orchard street.
Dover street, 3 feet north from Orchard street.
Durham street, opposite Skehan street.
Durham street, 5 feet west from Hanson street.
Eastman place, 279 feet south from Highland avenue.
Edmands street, 15 feet south from Broadway.
Ellsworth street, 7 feet west from Rush street.
Elm street, 59 feet west from Craigie street.
Elm street, 17 feet west from Porter street.

Elm street, 28 feet east from Linden avenue.
Elm street, 11 feet east from Mossland street.
Elm street, 9 feet west from Cedar street.
Elm street, 153 feet east from Cherry street.
Elm street, 110 feet west from Cherry street.
Elm street, 14 feet east from Burnside avenue.
Elm street, 104 feet east from Willow avenue.
Elm street, 20 feet east from St. James avenue.
Elm street, 9 feet west from Elston street.
Elm street, 90 feet west from Windom street.
Elm street, 25 feet west from Russell street.
Elm street, 11 feet west from Grove street.
Elm street, 82 feet west from Chester street.
Elmwood street, 9 feet south from Holland street.
Elmwood street, 300 feet east from Harrison street.
Elmwood street, 85 feet west from Harrison street.
Eliot street, 3 feet east from Park street.
Endicott avenue, 422 feet south from Broadway.
Evergreen avenue, 8 feet east from School street.
Evergreen avenue, 114 feet east from Sycamore street.
Everett avenue, 5 feet west from Cross street.
Everett avenue, 9 feet east from Dana street.
Everett avenue, 449 feet west from Cross street.
Everett street, opposite Emerson street.
Fairlee street, 134 feet west from Cherry street.
Fairmount avenue, 280 feet west from Curtis street.
Fairmount avenue, opposite Watson street.
Farm lane, 70 feet north from Sumner street.
Farm lane, 67 feet south from Roberts street.
Farragut avenue, 258 feet south from Broadway.
Farragut avenue, 537 feet south from Broadway.
Fenwick street, 40 feet north from Broadway.
Fiske avenue, 120 feet east from Hinckley street.
Fitchburg street, 395 feet east from Linwood street.
Flint street, 18 feet east from Flint avenue.
Flint street, 59 feet east from Cross street.
Flint street, 30 feet west from Franklin street.
Florence street, 206 feet south from Perkins street.
Florence street, 7 feet south from Pearl street.
Florence street, 453 feet north from Washington street.
Forster street, opposite Tennyson street.
Fosket street, 6 feet west from Bay State avenue.
Francesca avenue, 305 feet east from College avenue.
Francesca avenue, 7 feet west from Liberty avenue.
Franklin street, 14 feet north from Arlington street.
Franklin street, 76 feet south from Webster street.
Franklin street, 156 feet south from Pearl street.
Franklin street, 80 feet south from Oliver street.
Franklin street, 87 feet south from Palmer avenue.
Franklin street, 29 feet north from Washington street.
Fremont street, 82 feet north from Main street.
Fremont street, 343 feet north from Main street.
Fremont street, opposite Meacham street.
Fremont street, 287 feet north from Meacham street.
Fremont street, 25 feet north from East Albion street.
Frost avenue, 75 feet east from Sherman street.
Fountain avenue, 280 feet west from Glen street.
Garden court, 357 feet south from Somerville avenue.
Garfield avenue, 7 feet north from Broadway.
Garfield avenue, 24 feet south from Mystic avenue.
Garrison avenue, 235 feet south from Broadway.

Gibbens street, 202 feet west from Central street.
Gibbens street, 129 feet west from Benton road.
Gilman square, opposite Marshall street.
Gilman street, 103 feet east from Walnut street.
Gilman street, 143 feet east from Jasper street.
Gilman street, 8 feet west from Aldrich street.
Gilman street, 176 feet east from Aldrich street.
Gilman street, 295 feet west from Cross street.
Glass-house court, 360 feet west from Water street.
Glen street, 147 feet south from Broadway.
Glen street, 8 feet north from Brook street.
Glen street, 6 feet north from Webster street.
Glen street, 1 foot north from Flint street.
Glen street, 11 feet north from Fountain avenue.
Gorham street, 310 feet south from Holland street.
Gorham street, 67 feet north from Howard street.
Grand View avenue, 286 feet east from Vinal avenue.
Granite street, 178 feet north from Somerville avenue.
Grant street, 2 feet north from Derby street.
Greene street, 295 feet south from Summer street.
Greenville street, 148 feet north from Boston street.
Greenville street, 33 feet north from Munroe street.
Grove street, 163 feet south from Highland avenue.
Hall avenue, 310 feet east from College avenue.
Hall avenue, 306 feet west from Liberty avenue.
Hall avenue, 9 feet west from Liberty avenue.
Hall street, 269 feet west from Cedar street.
Hamlet street, 321 feet south from Highland avenue.
Hammond street, 30 feet west from Dickinson street.
Hancock street, 258 feet south from Summer street.
Hanson street, 12 feet south from Village street.
Hanson street, 9 feet south from Nevada avenue.
Hanson street, 6 feet south from Skehan street.
Harvard street, 13 feet north from Beech street.
Harvard street, 23 feet north from Harvard place.
Harrison street, 77 feet east from Kent street.
Harrison street (Ward 7), 4 feet east from Elmwood street.
Hawkins street, 50 feet north from Lake street.
Hawthorne street, 8 feet east from Cutter avenue.
Hawthorne street, 209 feet east from West street.
Heath street, 3 feet west from Temple street.
Heath street, 308 feet west from West street.
Heath street, 100 feet west from Bond street.
Heath street, 4 feet east from Fenwick street.
Heath street, 5 feet east from Moreland street.
Henderson street, 107 feet north from Wilton street.
Herbert street, 163 feet west from Chester street.
Highland avenue, 28 feet west from Hamlet street.
Highland avenue, 5 feet east from Walnut street.
Highland avenue, 262 feet west from Walnut street.
Highland avenue, 80 feet east from Vinal avenue.
Highland avenue, 41 feet west from Putnam street.
Highland avenue, 75 feet west from Prescott street.
Highland avenue, 114 feet west from School street.
Highland avenue, 410 feet west from School street.
Highland avenue, 112 feet west from Trull lane.
Highland avenue, 171 feet east from Central street.
Highland avenue, 214 feet east from Spring Hill terrace.
Highland avenue, 23 feet west from Spring Hill terrace.
Highland avenue, 20 feet west from Belmont street.
Highland avenue, 4 feet east from Tower street.

Highland avenue, 2 feet east from Porter street.
Highland avenue, 212 feet east from Cedar street.
Highland avenue, 63 feet east from Cherry street.
Highland avenue, 35 feet east from Hancock street.
Highland avenue, 4 feet west from Hancock street.
Highland avenue, 44 feet east from Willow avenue.
Highland avenue, 3 feet west from Willow avenue.
Highland avenue, 59 feet east from West street.
Highland avenue, 36 feet west from West street.
Highland avenue, 36 feet east from Grove street.
Highland avenue, 6 feet west from Grove street.
Highland avenue, 218 feet west from Grove street.
Highland avenue, 64 feet east from Davis square.
Hinckley street, 106 feet south from Broadway.
Holland street, 39 feet west from Dover street.
Holland street, 8 feet west from B. & M. R. R. crossing.
Holland street, 5 feet east from Jay street.
Holland street, 3 feet east from Paulina street.
Holland street, 94 feet east from Claremon street.
Homer square, 200 feet west from Bonner avenue.
Houghton street, 82 feet west from Prospect street.
Houghton street, 3 feet west from Bolton street.
Houghton street, 10 feet west from Oak street.
Hudson street, 12 feet east from Waldo street.
Hudson street, opposite Benton road.
Hudson street, 294 feet east from Lowell street.
Hudson street, 362 feet west from Lowell street.
Hudson street, 675 feet west from Lowell street.
Ibbetson street, 256 feet north from Somerville avenue.
Ibbetson street, 6 feet south from Kimball street.
Irving street, 6 feet south from Broadway.
Irving street, 285 feet south from Broadway.
Irving street, 542 feet north from Holland street.
Irving street, 190 feet north from Holland street.
James street, 100 feet north from Pearl street.
Jaques street, 10 feet west from Chauncey avenue.
Jaques street, 8 feet west from Grant street.
Jaques street, 360 feet east from Temple street.
Jaques street, 185 feet west from Temple street.
Jaques street, 410 feet east from Bond street.
Jasper street, 5 feet south from Virginia street.
Jay street, 82 feet north from Howard street.
Jenny Lind avenue, 224 feet south from Broadway.
Jenny Lind avenue, 16 feet north from Vernon street.
Jenny Lind avenue, 320 feet north from Vernon street.
Jenny Lind avenue, 467 feet north from Vernon street.
Joseph street, 100 feet west from Adrian street.
Josephine avenue, 397 feet north from Morrison avenue.
Josephine avenue, 213 feet south from Broadway.
Joy street, 34 feet south from Washington street.
Joy street, 502 feet south from Washington street.
Joy street, 271 feet north from Poplar street.
Kensington avenue, 6 feet north from Broadway.
Kent court, 205 feet west from Kent street.
Kidder avenue, 346 feet east from College avenue.
Kingman court, 282 feet south from Washington street.
Kingston street, 95 feet west from Thorndike street.
Knowlton street, opposite Morton street.
Lake street, 220 feet west from Hawkins street.
Lake street, 4 feet east from Carlton street.
Laurel street, 50 feet north from Greene street.

Laurel street, 8 feet north from Park place.
Lawrence street, 9 feet south from Richardson street.
Leland street, 14 feet south from Dane avenue.
Lexington avenue, 3 feet west from Hancock street.
Liberty avenue, 3 feet north from Kidder avenue.
Liberty avenue, 12 feet north from Mallett street.
Lincoln street, 174 feet north from Perkins street.
Lincoln avenue, 206 feet west from Mt. Vernon street.
Linden street, 31 feet north from Charlestown street.
Linden street, 237 feet south from Somerville avenue.
Linden avenue, 118 feet south from Gilson terrace.
Linden avenue, 255 feet south from Olive avenue.
Linden avenue, 30 feet north from Olive avenue.
Line street, 272 feet west from Cooney street.
Line street, 100 feet west from Smith avenue.
Linwood street, 385 feet south from Washington street.
Linwood street, 48 feet south from Lamson court.
Linwood street, 52 feet south from London street.
Linwood street, 2 feet south from Linwood place.
London street, 383 feet east from Linwood street.
Loring street, 276 feet north from Somerville avenue.
Lovell street, 41 feet south from Electric avenue.
Lowell street, 1 foot north from Fiske avenue.
Lowell street, 183 feet south from Richardson street.
Lowell street, opposite Vernon street.
Lowell street, 3 feet south from Princeton street.
Lowell street, 163 feet south from Highland avenue.
Lowell street, 53 feet north from Crown street.
Lowell street, 351 feet south from Summer street.
Lowell street, 16 feet north from Kimball street.
Madison street, 103 feet west from School street.
Madison street, 467 feet west from School street.
Main street, junction with Broadway.
Main street, 112 feet west from Mt. Vernon avenue.
Main street, west corner of Moreland street.
Mansfield street, 190 feet north from Somerville avenue.
Mansfield street, 189 feet south from Washington street.
Maple avenue, 294 feet east from School street.
Maple street, 7 feet south from Jackson street.
Maple street, 87 feet north from Poplar street.
Marion street, 31 feet south from Adrian street.
Marion street, 74 feet north from Wyatt street.
Marshall street, 80 feet south from Stickney avenue.
Marshall street, 30 feet north from Stickney avenue.
Marshall street, opposite Howe street.
Marshall street, 5 feet north from Evergreen avenue.
Marshall street, 104 feet south from Mortimer place.
Marshall street, 109 feet north from Oakland avenue.
Malloy court, 16 feet south from Somerville avenue.
Meacham road, 4 feet north from Orchard street.
Meacham road, 97 feet north from Kingston street.
Meacham street, 14 feet west from Moreland street.
Mead street, 48 feet east from Claremont street.
Medford street, 50 feet north from Hennessey court.
Medford street, 56 feet north from Lowell street.
Medford street, 14 feet north from Jenny Lind avenue.
Medford street, 16 feet south from Bartlett street.
Medford street, 6 feet north from Central street.
Medford street, 19 feet south from Sycamore street.
Medford street, 15 feet south from Lee street.
Medford street, 46 feet south from Thurston street.

Medford street, 31 feet south from Dartmouth street.
Medford street, 5 feet north from School street.
Medford street, 171 feet north from Marshall street.
Medford street, 266 feet north from Walnut street.
Medford street, 17 feet south from Walnut street.
Medford street, 291 feet south from Walnut street.
Medford street, 8 feet south from Greenville street.
Medford street, 13 feet north from Prospect-hill avenue.
Medford street, 240 feet south from Prospect-hill avenue.
Medford street, opposite Chester avenue.
Medford street, 216 feet south from Washington street.
Medford street, 69 feet north from Jackson street.
Medford street, 21 feet north from Somerville avenue.
Medford street, 382 feet south from Somerville avenue.
Medford street, 220 feet north from Ward street.
Medford street, 55 feet north from Ward street.
Medford street, 91 feet south from Ward street.
Medford street, 46 feet south from South street.
Medford street, 17 feet south from Warren street.
Medford street, 220 feet south from Warren street.
Melrose street, 610 feet north from Mystic avenue.
Merriam street, 25 feet north from Charlestown street.
Miller street, 300 feet west from Sacramento street.
Miner street, 137 feet north from Vernon street.
Mondamin court, 272 feet west from Ivaloo street.
Monmouth street, 7 feet west from Central street.
Monmouth street, 156 feet east from Harvard street.
Montrose street, 10 feet east from Sycamore street.
Montrose street, 287 feet east from Sycamore street.
Montrose street, 259 feet west from School street.
Moore street, 21 feet north from Mead street.
Moore street, 22 feet south from Holland street.
Moore street, 335 feet south from Holland street.
Moreland street, 345 feet north from Meacham street.
Moreland street, 2 feet south from East Albion street.
Morgan street, 125 feet west from Park street.
Morrison avenue, 124 feet west from Cedar street.
Morrison avenue, 44 feet east from Pearson avenue.
Morrison avenue, 124 feet east from Rogers avenue.
Morrison avenue, 13 feet west from Newberne street.
Morrison avenue, 183 feet west from Clifton street.
Morrison avenue, 33 feet west from Grove street.
Mossland street, 114 feet north from Somerville avenue.
Munroe street, 203 feet east from Walnut street.
Munroe street, 289 feet west from Boston street.
Murdock street, 204 feet east from Cedar street.
Murdock street, 610 feet east from Cedar street.
Mt. Vernon avenue, 156 feet north from Heath street.
Mt. Vernon avenue, 38 feet south from Heath street.
Mt. Vernon street, 246 feet north from Washington street.
Mt. Vernon street, 8 feet north from Pearl street.
Mt. Vernon street, 7 feet south from Perkins street.
Mt. Vernon street, 11 feet south from Lincoln avenue.
Mt. Vernon street, 5 feet south from Broadway.
Mt. Pleasant street, 140 feet south from Broadway.
Mt. Pleasant street, 135 feet north from Perkins street.
Myrtle street, 218 feet north from Washington street.
Myrtle street, 460 feet north from Washington street.
Myrtle street, 74 feet south from Pearl street.
Myrtle street, 219 feet north from Pearl street.
Mystic avenue, 90 feet east from Union street.

Mystic avenue, 3 feet west from Union street.
Mystic avenue, 438 feet east from Austin street.
Mystic avenue, 11 feet west from Chauncey avenue.
Mystic avenue, 60 feet west from Temple street.
Mystic avenue, 800 feet east from Moreland street.
Mystic avenue, 544 feet east from Moreland street.
Mystic avenue, 241 feet east from Moreland street.
Mystic street (Ward 1), 148 feet north from Benedict street.
Mystic street (Ward 2), 160 feet south from Washington street.
Nashua street, 190 feet south from Wilton street.
Newbury street, 15 feet south from Holland street.
Newbury street, 260 feet south from Holland street.
Newbury street, 558 feet south from Holland street.
Newbury street, 777 feet south from Holland street.
Newbury street, 200 feet north from Cambridge line.
New Cross street, 114 feet north from Broadway.
Newton street, 9 feet west from Joseph street.
Newton street, 9 feet east from Clark street.
Norfolk street, 27 feet south from Webster avenue.
Norfolk street, 227 feet south from Webster avenue.
North street, 18 feet north from Broadway.
North street, 453 feet north from Raymond avenue.
North street, 190 feet north from city bound No. 17.
North Union street, 287 feet north from Mystic avenue.
Oak street, 8 feet west from Prospect street.
Oak street, 315 feet north from Houghton street.
Oakland avenue, 109 feet west from Marshall street.
Oliver street, 191 feet east from Cross street.
Oliver street, 15 feet east from Glen street.
Oliver street, 7 feet west from Franklin street.
Orchard street, 8 feet west from Russell street.
Orchard street, west corner Milton street.
Orchard street, 9 feet east from Chester street.
Otis street, 12 feet west from Cross street.
Otis street, 440 feet west from Cross street.
Otis street, 9 feet east from Dana street.
Otis street, 6 feet east from Wigglesworth street.
Oxford street, 280 feet west from School street.
Oxford street, 46 feet east from Trull lane.
Oxford street, 237 feet west from Hersey street.
Park avenue, 83 feet west from College avenue.
Park avenue, 10 feet west from Chandler street.
Park street, opposite Allen court.
Park street, 187 feet north from Beacon street.
Park street, 69 feet south from Somerville avenue.
Partridge avenue, 5 feet south from Broadway.
Partridge avenue, 26 feet north from Medford street.
Partridge avenue, 117 feet south from Medford street.
Partridge avenue, 421 feet south from Medford street.
Partridge avenue, 276 feet north from Vernon street.
Paulina street, 184 feet north from Holland street.
Paulina street, 288 feet south from Broadway.
Paulina street, 5 feet south from Broadway.
Pearl street, 50 feet west from Crescent street.
Pearl street, 7 feet north from Pinckney street.
Pearl street, 60 feet west from Hillside avenue.
Pearl street, 15 feet east from Delaware street.
Pearl street, 9 feet west from Glen street.
Pearl street, 30 feet west from Dana street.
Pearl street, 1 foot west from Wigglesworth street.

Pearl street, 6 feet west from Walnut street.
Pearl street, 72 feet east from Bradley street.
Pearl street, 110 feet east from Marshall street.
Pearson road, 127 feet north from Broadway.
Pembroke street, 14 feet east from Tennyson street.
Perkins street, opposite Myrtle street.
Perkins street, 78 feet east from Florence street.
Perkins street, 24 feet east from Pinckney street.
Perkins street, 56 feet east from Perkins place.
Perkins street, 21 feet east from Mt. Pleasant street.
Perry street, 324 feet south from Washington street.
Pinckney street, 11 feet north from Washington street.
Pinckney street, 330 feet south from Pearl street.
Pinckney street, 203 feet north from Pearl street.
Pinckney street, 71 feet south from Pearl street.
Pitman street, 180 feet west from Beech street.
Pleasant avenue, 256 feet west from Walnut street.
Poplar street, 21 feet west from Joy street.
Porter street, 1 foot north from Mountain avenue.
Porter street, 282 feet south from Summer street.
Porter street, 24 feet north from Williams court.
Porter street, 8 feet north from Parker place.
Prescott street, 330 feet south from Highland avenue.
Prescott street, 586 feet south from Highland avenue.
Prescott street, 257 feet north from Summer street.
Preston road, 350 feet west from School street.
Pritchard avenue, 255 feet north from Morrison avenue.
Professors' row, 39 feet east from College avenue.
Professors' row, 158 feet west from Boston avenue.
Professors' row, 126 feet west from College avenue.
Professors' row, 291 feet west from College avenue.
Professors' row, 548 feet east from Packard avenue.
Professors' row, 156 feet east from Packard avenue.
Professors' row, 3 feet west from Packard avenue.
Professors' row, 296 feet west from Packard avenue.
Professors' row, 113 feet east from Curtis street.
Prospect-hill avenue, 10 feet north from Munroe street.
Prospect street, 135 feet north from Bennett street.
Prospect street, 35 feet south from Concord avenue.
Prospect street, 185 feet south from Oak street.
Prospect street, 403 feet south from Oak street.
Prospect street, 63 feet north from Houghton street.
Putnam street, 116 feet south from Highland avenue.
Putnam street, 420 feet south from Highland avenue.
Putnam street, 612 feet north from Summer street.
Putnam street, 308 feet north from Summer street.
Quincy street, 91 feet north from Somerville avenue.
Quincy street, 381 feet north from Somerville avenue.
Quincy street, 26 feet south from Summer street.
Raymond avenue, 728 feet west from Curtis street.
Richardson street, 11 feet west from Nashua street.
Richdale avenue, opposite Thurston street.
Robinson street, 325 feet west from Central street.
Rogers avenue, 369 feet south from Broadway.
Rogers avenue, 257 feet north from Frederick avenue.
Rogers avenue, 88 feet south from Frederick avenue.
Rogers avenue, 255 feet north from Morrison avenue.
Rossmore street, 244 feet south from Washington street.
Rush street, 84 feet south from Pearl street.
Rush street, 11 feet north from Pearl street.
Rush street, 128 feet north from Brook street.

Sacramento street, 5 feet south from Miller street.
Sanborn avenue, 55 feet east from Walnut street.
Sargent avenue, 474 feet south from Broadway.
Sargent avenue, 361 feet west from Walnut street.
Sargent avenue, 95 feet west from Walnut street.
School street, 31 feet south from Oakland avenue.
School street, 100 feet south from Maple avenue.
School street, 6 feet south from Montrose street.
School street, 128 feet north from Highland avenue.
School street, 88 feet north from Oxford street.
School street, 15 feet north from Avon street.
School street, 100 feet south from Summer street.
School street, 93 feet south from Preston road.
School street, 61 feet north from Knapp street.
Sewall street, 311 feet west from Grant street.
Shawmut street, 9 feet west from Washington street.
Shawmut street, 153 feet west from Shawmut place.
Simpson avenue, 272 feet south from Broadway.
Simpson avenue, 142 feet north from Holland street.
Skehan street, 110 feet east from Hanson street.
Somerville avenue, 188 feet west from Mossland street.
Somerville avenue, 308 feet east from Mossland street.
Somerville avenue, 600 feet east from Mossland street.
Somerville avenue, 116 feet west from Elm street.
Somerville avenue, 9 feet east from Ibbetson street.
Somerville avenue, 77 feet east from Belmont street.
Somerville avenue, 14 feet west from Garden court.
Somerville avenue, 133 feet west from Kent street.
Somerville avenue, 13 feet west from Beech street.
Somerville avenue, 11 feet east from Central street.
Somerville avenue, 15 feet west from Laurel street.
Somerville avenue, 86 feet west from Granite street.
Somerville avenue, 38 feet west from Sherman street.
Somerville avenue, 76 feet east from Hawkins street.
Somerville avenue, 185 feet west from Hawkins street.
Somerville avenue, 88 feet west from Quincy street.
Somerville avenue, 105 feet east from Carlton street.
Somerville avenue, 90 feet west from Prospect street.
Somerville avenue, 28 feet west from Linden street.
Somerville avenue, 9 feet east from Mystic street.
Somerville avenue, 94 feet west from Mansfield street.
Somerville avenue, 126 feet east from Medford street.
Somerville avenue, 88 feet east from Poplar street.
Somerville avenue, 464 feet east from Poplar street.
Somerville avenue, 153 feet west from Linwood street.
Somerville avenue, 20 feet east from F. R. R. crossing.
Somerville avenue, 368 feet west from Franklin court.
Somerville avenue, 262 feet west from Franklin court.
Somerville avenue, 23 feet east from Franklin court.
Somerville avenue, 100 feet west from Cambridge line.
South street, 97 feet west from Bedford street.
South street, 2 feet east from Harding street.
South street, 25 feet west from Hunting street.
South street, 80 feet west from Willow place.
Spencer avenue, 63 feet east from Hancock street.
Spring street, 10 feet south from Pitman street.
Spring street, 184 feet north from Beech street.
Springfield street, 140 feet south from Concord avenue.
Springfield street, 21 feet south from Dickinson street.
Springfield street, 177 feet south from Houghton street.
Spring Hill terrace, 333 feet south from Highland avenue.

Stickney avenue, 212 feet west from Marshall street.
Stone avenue, 120 feet north from Union square.
Stone avenue, 275 feet south from Columbus avenue.
Summer street, 148 feet east from Cutter avenue.
Summer street, opposite Elston street.
Summer street, west corner Hancock street.
Summer street, 34 feet east from Banks street.
Summer street, 6 feet east from Cherry street.
Summer street, 6 feet east from Cedar street.
Summer street, 24 feet east from Linden avenue.
Summer street, opposite Craigie street.
Summer street, 35 feet east from Porter street.
Summer street, 4 feet east from Lowell street.
Summer street, 3 feet east from Belmont street.
Summer street, 1 foot west from Spring street.
Summer street, 53 feet west from Harvard street.
Summer street, 215 feet east from Harvard street.
Summer street, 59 feet east from Central street.
Summer street, 19 feet west from Laurel street.
Summer street, 52 feet west from Preston road.
Summer street, 191 feet west from School street.
Summer street, 8 feet east from School street.
Summer street, opposite Putnam street.
Summer street, 6 feet west from Vinal avenue.
Summit avenue, 231 feet east from Vinal avenue.
Sunnyside avenue, 99 feet west from Wigglesworth street.
Sycamore street, 18 feet south from Broadway.
Sycamore street, 62 feet south from Browning road.
Sycamore street, 1 foot south from Forster street.
Sycamore street, 200 feet north from Medford street.
Sycamore street, 174 feet south from Medford street.
Sydney street, 418 feet east from Temple street.
Talbot avenue, 488 feet east from Packard avenue.
Temple street, 4 feet north from Broadway.
Temple street, 123 feet south from Sewall street.
Temple street, 11 feet north from Jaques street.
Temple street, 6 feet south from Derby street.
Temple street, 5 feet south from Sydney street.
Tenney court, 306 feet north from Mystic avenue.
Tennyson street, 4 feet south from Medford street.
Tennyson street, 117 feet north from Pembroke street.
Thorndike street, 4 feet south from Holland street.
Thorndike street, 82 feet north from Kingston street.
Thorpe place, 269 feet south from Highland avenue.
Thurston street, 187 feet north from Medford street.
Thurston street, 160 feet south from Evergreen avenue.
Thurston street, 6 feet north from Evergreen avenue.
Thurston street, 348 feet north from Evergreen avenue.
Tower street, 18 feet north from Crown street.
Tremont street, 9 feet south from Webster avenue.
Tremont street, 454 feet south from Webster avenue.
Trull street, 3 feet south from Medford street.
Trull street, 276 feet south from Medford street.
Trull street, 522 feet north from Vernon street.
Trull street, 270 feet north from Vernon street.
Tufts street, 51 feet north from Washington street.
Tufts street, 150 feet south from Glen street.
Tufts street, 43 feet north from Glen street.
Tufts street, 53 feet south from Dell street.
Tufts street, 45 feet south from Cross street.
Tyler street, 31 feet east from Vine street.

Union square, 267 feet east from Webster avenue.
Union square, 15 feet east from Stone avenue.
Union square, 3 feet west from Bow street.
Union square, centre of square.
Union street, 3 feet north from Broadway.
Union street, 123 feet south from Mystic avenue.
Veazie street, 1 foot west from James street.
Vernon street, 72 feet west from Partridge avenue.
Vernon street, 1 foot east from Bartlett street.
Vernon street, 2 feet east from Miner street.
Victoria street, 255 feet south from Broadway.
Villa avenue, 121 feet south from Winslow avenue.
Vinal avenue, 10 feet north from Pleasant avenue.
Vinal avenue, 129 feet north from Aldersey street.
Vinal avenue, 206 feet north from Summer street.
Vinal avenue, 6 feet south from Highland avenue.
Vine street, 15 feet north from Beacon street.
Vine street, opposite Eliot street.
Vine street, 121 feet south from Tyler street.
Vine street, 32 feet south from Somerville avenue.
Virginia street, 45 feet west from Aldrich street.
Waldo street, 6 feet north from Highland avenue.
Wallace street, 37 feet south from Broadway.
Wallace street, 395 feet south from Broadway.
Wallace street, 483 feet north from Park avenue.
Wallace street, 166 feet north from Park avenue.
Wallace street, 10 feet north from Holland street.
Walnut street, opposite Veazie street.
Walnut street, 87 feet north from Gilman street.
Walnut street, 88 feet south from Wellington avenue.
Walnut street, 31 feet north from Pleasant avenue.
Walnut street, 12 feet south from Boston street.
Walter street, 28 feet west from Walnut street.
Walter street, 50 feet west from Bradley street.
Ward street, 104 feet west from Medford street.
Ward street, 3 feet east from Emery street.
Ware street, 258 feet west from Curtis street.
Warren avenue, 5 feet north from Sanborn avenue.
Warren avenue, 48 feet north from Bow street.
Warren avenue, 7 feet south from Columbus avenue.
Warwick street, 426 feet east from Cedar street.
Washington street, 69 feet west from Crescent street.
Washington street, 3 feet west from Waverley street.
Washington street, west corner Mt. Vernon street.
Washington street, 3 feet west from Murray street.
Washington street, 2 feet east from Bartlett street.
Washington street, 6 feet west from Florence street.
Washington street, 15 feet west from Myrtle street.
Washington street, 18 feet east from Franklin avenue.
Washington street, 160 feet east from Franklin street.
Washington street, 50 feet east from Shawmut street.
Washington street, 37 feet east from Rossmore street.
Washington street, 78 feet east from Boston street.
Washington street, 28 feet west from Mystic street.
Washington street, 6 feet west from Clark place.
Washington street, 156 feet west from Bonner avenue.
Washington street, 6 feet east from Kingman court.
Washington street, 243 feet east from Parker street.
Washington street, 50 feet east from Bowdoin street.
Washington street, 9 feet east from Leland street.
Washington street, 112 feet east from Dane street.

Washington street, 175 feet west from Dane street.
 Washington street, 45 feet east from Beacon street.
 Washington street, 62 feet east from Line street.
 Water street, 91 feet north from South street.
 Water street, 254 feet north from South street.
 Water street, 354 feet north from South street.
 Waterhouse street, 24 feet south from Broadway.
 Waterhouse street, 326 feet south from Broadway.
 Waterhouse street, 630 feet south from Broadway.
 Webster avenue, 93 feet south from Washington street.
 Webster avenue, 12 feet south from Everett street.
 Webster avenue, 25 feet north from Newton street.
 Webster avenue, 63 feet north from Prospect street.
 Webster avenue, 18 feet south from Prospect street.
 Webster avenue, 78 feet north from Tremont street.
 Webster avenue, 3 feet north from Beach avenue.
 Webster avenue, 1 foot south from Columbia court.
 Webster street, 25 feet east from Cross street.
 Webster street, 9 feet east from Rush street.
 Webster street, opposite Cutter street.
 Wellington avenue, 15 feet west from Montgomery avenue.
 Wesley street, 200 feet north from Pearl street.
 Wesley park, 16 feet north from Bow street.
 Wesley park, 335 feet north from Bow street.
 West street, 2 feet north from Broadway.
 West street (Ward 7), 92 feet south from Highland avenue.
 West street (Ward 7), 140 feet north from Highland avenue.
 Westminster street, 156 feet south from Electric avenue.
 Westwood road, 90 feet west from Central street.
 Westwood road, 58 feet east from Benton road.
 Wheatland street, 129 feet north from Broadway.
 Wheatland street, 9 feet south from Jaques street.
 Wheatland street, 78 feet south from Mystic avenue.
 Whipple street, 101 feet north from Highland avenue.
 William street, 8 feet east from Chandler street.
 Willow avenue, 14 feet north from Summer street.
 Willow avenue, 3 feet north from Lexington avenue.
 Willow avenue, 46 feet south from Morrison avenue.
 Willow avenue, 42 feet south from Fosket street.
 Willow avenue, opposite Mallett street.
 Wilton street, 6 feet east from Nashua street.
 Wilton street, 10 feet east from Lawrence street.
 Windham road, 7 feet north from Washington street.
 Windom street, 7 feet south from Summer street.
 Windsor road, 86 feet east from Willow avenue.
 Windsor road, 45 feet west from Hancock street.
 Winslow avenue, 145 feet east from College avenue.
 Winslow avenue, 5 feet west from Grove street.
 Winslow avenue, 8 feet west from Clifton street.
 Winter street, 130 feet east from Holland street.
 Winter-hill circle, 178 feet north from Broadway.
 Winthrop avenue, 7 feet north from Broadway.
 Woodbine street, 222 feet west from Centre street.
 Wyatt street, 8 feet south from Taunton street.

**List of Private Hydrants Supplied from the City of
Somerville Mains.**

John P. Squire & Co.	8
North Packing and Provision Co.	10

New England Dressed Meat and Wool Co.	5
Boston & Maine Railroad	7
Union Glass Works	1
Fresh Pond Ice Co.	1
American Tube Works	1
Middlesex Bleachery	3
Boston Elevated Railway Co.	1
Metropolitan Sewerage Pumping Station	1
Tufts College	4

Gates—Construction Account.

New gates have been set in the following locations:—

- Adams street, 2-inch gate, 3 feet out from waterpost located 57 feet south from Broadway.
- Bonair street, 2-inch gate, 3 feet out from waterpost located 19 feet west from Wigglesworth street.
- Central street, 12-inch gate, 15 feet out from west line, on south line of Highland avenue.
- Central street, 12-inch gate, 15 feet out from west line, on north line of Summer street.
- Central street, 12-inch gate, 15 feet 8 inches out from west line, on south line of Summer street.
- Central street, 6-inch gate, 17 feet out from west line and 15 feet north from south line of Berkeley street.
- Central street, 4-inch gate, 14 feet 8 inches out from west line and 20 feet south from north line of Monmouth street.
- Dana street, 2-inch gate, 3 feet out from waterpost located 30 feet east from Pearl street.
- East Albion street, 6-inch gate, 9 feet out from south line, on east line of Moreland street.
- Evergreen avenue, 8-inch gate, 13 feet 4 inches out from south line, on west line of Dartmouth street.
- Evergreen avenue, 8-inch gate, 13 feet 4 inches out from south line, on west line of Thurston street.
- Evergreen avenue, 8-inch gate, 13 feet 4 inches out from south line, on east line of Sycamore street.
- Evergreen avenue, 4-inch gate, 16 feet out from south line and 13 feet 4 inches east from west line of Dartmouth street.
- Farm lane, 6-inch gate, 12 feet out from east line, on south line of Sumner street.
- Frost avenue, 4-inch gate, 18 feet out from north line and 22 feet east from west line.
- Heath street, 6-inch gate, 13 feet out from north line, on west line of Bond street.
- Heath street, 6-inch gate, 13 feet out from north line and 12 feet east from east line of Mt. Vernon avenue.
- Highland avenue, 12-inch gate, 20 feet out from south line, on east line of Willow avenue.
- Highland avenue, 12-inch gate, 20 feet out from south line, on west line of Cedar street.
- Highland avenue, 6-inch gate, 15 feet out from south line, on east line of Willow avenue.
- Holyoke road, 6-inch gate, 13 feet 4 inches out from east line, on south line of Elm street.
- Holyoke road, 4-inch gate, 15 feet out from east line and 17 feet north from south line.
- Josephine avenue, 6-inch gate, 15 feet out from east line, on north line of Frederick avenue.
- Kidder avenue, 4-inch gate, 15 feet out from north line and 15 feet west from east line of Powder House terrace.

- Lawrence street, 4-inch gate, 13 feet out from west line and 7 feet south from north line of Richardson street.
- Lowell street, 10-inch gate, 13 feet 4 inches out from west line, on north line of Highland avenue.
- Lowell street, 10-inch gate, 13 feet 4 inches out from west line, on south line of Hudson street.
- Lowell street, 6-inch gate, 12 feet out from west line, on north line of Somerville avenue.
- Meacham street, 8-inch gate, 13 feet out from north line, on west line of Mt. Vernon avenue.
- Medford street, 2-inch gate, 3 feet out from waterpost located 35 feet east from Ward street.
- Monmouth street, 6-inch gate, 13 feet 4 inches out from north line, on west line of Central street.
- Mt. Vernon street, 2-inch gate, 4 feet out from waterpost located 71 feet south from Broadway.
- Mystic street, 6-inch gate, 13 feet 4 inches out from east line, on south line of Mystic avenue.
- Mystic street, 6-inch gate, 13 feet 4 inches out from east line, on north line of Benedict street.
- Powder House terrace, 6-inch gate, 13 feet 4 inches out from east line, on west line of Liberty avenue.
- Powder House terrace, 6-inch gate, 13 feet 4 inches out from east line, on north line of Kidder avenue.
- Somerville avenue, 2-inch gate, 3 feet out from waterpost located 120 feet west from Oak square.
- Sumner street, 6-inch gate, 7 feet out from north line and 3 feet west from east line of Farm lane.
- Temple street, 2-inch gate, 3 feet out from waterpost located 124 feet south from Heath street.
- Walnut street, 8-inch gate, 15 feet out from east line and 30 feet north from south line of Highland avenue.
- Washington street, 10-inch gate, 20 feet out from west line, on north line of Bowdoin street.
- Washington street, 6-inch gate, 22 feet out from west line and 4 feet north from north line of Bowdoin street.
- Washington street, 6-inch gate, 22 feet out from west line and 4 feet south from north line of Bowdoin street.
- Windham road, 6-inch gate, 13 feet 4 inches out from west line, on south line of Columbus avenue.
- Winslow avenue, 6-inch gate, 13 feet 4 inches out from south line, on west line of Clifton street.
- Wyatt circle, 4-inch gate, 6 feet out from west line, on south line of Wyatt street.

Gates—Renewal Account.

The following changes have been made in the size and location of main gates:—

- Bond street, 6-inch gate, set 13 feet 4 inches out from east line, on north line of Heath street, and 6-inch gate removed from 13 feet 4 inches out from east line and 4 feet north from north line of Heath street.
- Cambria street, 6-inch gate, set 13 feet 4 inches out from north line, on west line of Central street, and 4-inch gate removed from same location.
- Cross street, 12-inch gate, set 13 feet 4 inches out from east line, on north line of Broadway, and 4-inch gate removed from same location.
- Dartmouth street, 6-inch gate, set 13 feet 4 inches out from east line, on north line of Evergreen avenue, and 6-inch gate removed from same location.

- Dartmouth street, 6-inch gate, set 13 feet 4 inches out from east line, on south line of Broadway, and 6-inch gate removed from same location.
- Dickinson street, 10-inch gate, set 13 feet 4 inches out from west line, on south line of Springfield street, and 4-inch gate removed from same location.
- Evergreen avenue, 8-inch gate, set 13 feet 4 inches out from south line, on west line of School street, and 6-inch gate removed from same location.
- Farm lane, 4-inch gate, set 14 feet out from east line and 9 feet north from north line of Sumner street, and 4-inch gate removed from 18 feet out from east line and 9 feet north from north line of Sumner street.
- Garfield avenue, 6-inch gate, set 13 feet 4 inches out from west line, on north line of Broadway, and 6-inch gate removed from 16 feet out from west line, on north line of Broadway.
- Leon street, 6-inch gate, set 13 feet 4 inches out from north line, on east line of Concord avenue, and 4-inch gate removed from same location.
- Lowell street, 6-inch gate, set 11 feet out from west line, on south line of Summer street, and 4-inch gate removed from same location.
- Morgan street, 6-inch gate, set 13 feet 4 inches out from west line, on south line of Beacon street, and 4-inch gate removed from same location.
- Mortimer place, 6-inch gate, set 6 feet out from north line, on east line of Marshall street, and 4-inch gate removed from 6 feet out from north line and 8 feet west from east line of Marshall street.
- Mt. Vernon avenue, 12-inch gate, set 16 feet 8 inches out from east line, on north line of Heath street, and 8-inch gate removed from same location.
- Oakland avenue, 6-inch gate, set 13 feet 4 inches out from south line, on west line of Marshall street, and 6-inch gate removed from same location.
- Union square, 6-inch gate, set 3 feet west from west line of Bow street and 10 feet north from south line of Warren avenue, and 6-inch gate removed from 11 feet west from west line of Bow street and 16 feet south from south line of Warren avenue.
- Cross street, 6-inch gate, removed from 13 feet 4 inches out from east line and 260 feet north from north line of Broadway.

GATES—RECAPITULATION.

GATES.	2"	3"	4"	6"	8"	10"	12"	Total.
Set	7	—	8	30	6	4	7	62
Removed	—	—	8	8	1	—	—	17

Net increase in number of gates in 1901 45

Total number of gates in the city January 1, 1902 1,248

Check-Valves—Construction Account.

- Mt. Vernon avenue, one 8-inch check-valve was set 16 feet 8 inches out from east line and 13 feet 6 inches south from north line of Heath street.

Total number of check-valves in the city January 1, 1902, 7.

Locations of Water Posts.

- Adams street, 57 feet south from Broadway.
- Albion street, 83 feet west from Centre street.
- Appleton street, 49 feet west from Willow avenue.

Beacon street, 33 feet north from Concord avenue.
Beacon street, 33 feet west from Vine street.
Beacon street, 94 feet east from Sacramento street.
Bonair street, 19 feet west from Wigglesworth street.
Bond street, 14 feet north from Broadway.
Boston street, 107 feet west from Greenville street.
Broadway, 42 feet east from Franklin street.
Broadway, 75 feet west from Winthrop avenue.
Broadway, 6 feet west from Farm lane.
Broadway, 6 feet west from Irving street.
Broadway, 120 feet west from Clarendon avenue.
Broadway, 20 feet west from North street.
Cherry street, 161 feet south from Fairlee street.
College avenue, opposite Morrison avenue.
College avenue, 5 feet south from Kenwood street.
Columbus avenue, opposite Stone avenue.
Concord avenue, opposite Knapp school.
Dana street, 30 feet east from Pearl street.
Elm street, 25 feet west from Burnside avenue.
Flint street, 47 feet east from Cross street.
Gilman street, 69 feet east from Walnut street.
Grove street, 19 feet south from Highland avenue.
Highland avenue, 44 feet west from Hamlet street.
Highland avenue, 50 feet west from Putnam street.
Highland avenue, 15 feet west from Central street.
Highland avenue, 42 feet east from Crocker street.
Holland street, 30 feet west from Elmwood street.
Jaques street, 159 feet west from Grant street.
Laurel street, 20 feet south from Summer street.
Liberty avenue, 46 feet south from Broadway.
Linwood street, 70 feet west from Poplar street.
Medford street, 35 feet east from Ward street.
Medford street, at Gilman square.
Medford street, 45 feet east from Lee street.
Medford street, 19 feet east from Jenny Lind avenue.
Montrose street, 204 feet west from School street.
Mt. Vernon street, 71 feet south from Broadway.
Mystic avenue, 33 feet west from Union street.
Orchard street, 107 feet west from Dover street.
Otis street, 127 feet west from Cross street.
Pearl street, 28 feet east from Myrtle street.
Putnam street, 96 feet north from Summer street.
School street, 116 feet south from Broadway.
School street, 50 feet north from Berkeley street.
Somerville avenue, 175 feet east from Fitchburg R. R. crossing.
Somerville avenue, 246 feet east from Poplar street.
Somerville avenue, 89 feet east from Mystic street.
Somerville avenue, 119 feet west from School street.
Somerville avenue, 92 feet west from Kent street.
Somerville avenue, 120 feet west from Oak square.
Somerville avenue, 42 feet east from Mossland street.
Summer street, 14 feet east from Belmont street.
Summer street, 32 feet east from Cedar street.
Summer street, 35 feet east from Cutter avenue.
Temple street, 124 feet south from Heath street.
Tufts street, 114 feet east from Cross street.
Vernon street, 45 feet west from Central street.
Washington street, 96 feet west from Myrtle street.
Washington street, 7 feet west from Boston street.
Washington street, 34 feet west from Union square.

Washington street, opposite Leland street.

Wheatland street, 30 feet south from Mystic avenue.

Webster avenue, 68 feet north from Tremont street.

Locations of Drinking Fountains.

Belmont park	D
Broadway, opposite park, near Winthrop avenue	H
Franklin park	D
Union square, junction Somerville avenue and Washington street	H
Union square, in front of Hill building	D I
Lincoln park	D
Gilman square	H
Gilman square	D I
Cutter square	C
Davis square, in front of Medina building	D I
Teele square	H

H, horse trough; D, drinking fountain; I, ice water; C, combination trough and drinking fountain.

Meter Table.

SHOWING THE NUMBER OF METERS AND CLOCKS IN SERVICE, THE PURPOSE FOR WHICH THEY ARE USED, AND THE INCOME RECEIVED.

PURPOSE.	Number.	Meters Set.	Meters Removed.	Amount Received.
Apartment Houses and Tenements .	20	24	1	\$1,565 54
Bacon Works	3	4	1	318 94
Bakeries	4	4		233 24
Bleachery and Dye Works	2	2		390 46
Blocks of Tenements, Offices and Stores	34	34		1,924 60
Boarding-houses	8	8		190 42
Bottling Works	2	2	1	20 86
Bowling Alleys	1	1		35 84
Carhouses	3	5		625 18
Churches	1	1		19 32
Clubhouses	1	1		15 00
Coal Wharves	2	2		842 22
Colleges	1	10		375 86
Distilleries	1	1		516 60
Electric Light Stations	1	1		1,549 56
Elevator Clocks	1	1		202 56
Factories	18	20	1	2,383 90
Foundries	1	1		31 92
Glass Works	2	2		286 17
Grain Elevators	1	1		57 54
Greenhouses	1	2		80 78
Halls	1	1		21 70
Hospitals	2	3		289 94
Hotels	3	3		309 29
Machine Shops	1	1		15 00
Milk Business	5	5		162 68
Motor Clocks	7	7		92 40
Pickle and Preserving Works	1	1		145 41
Poultry Farms	3	3	1	95 20
Printing Offices	1	1		58 44
Railway Stations	4	4		351 24
Railway Yards	2	2		15,666 04
Schools	2	2		55 74
Sewerage Pumping Stations	1	1		219 78
Slaughtering and Rendering Establish- ments	6	20		19,440 74
Soap Works	2	2		161 44
Stables	50	50	3	2,047 72
Steam Engines	2	2		123 09
Vinegar Works	2	3		71 68
Wood Yards	2	2		122 50
		240	8	\$51,116 54

The quantity of water registered by the above meters and clocks in 1901 was 47,918,011 cubic feet.

Defects in Street Mains.

The following bursts and leaks in street mains occurred in 1901:—

BURSTS.

	SIZE OF MAIN.	NUMBER.
	4"	1
	8"	1
	14"	1
Total		3

LEAKS.

	SIZE OF MAIN.	NUMBER.
	4"	1
	6"	2
	8"	3
	10"	1
	16"	3
	18"	1
Total		11

Water Services.**SERVICE CONSTRUCTION.**

The following table shows the sizes and lengths of service connections laid in 1901:—

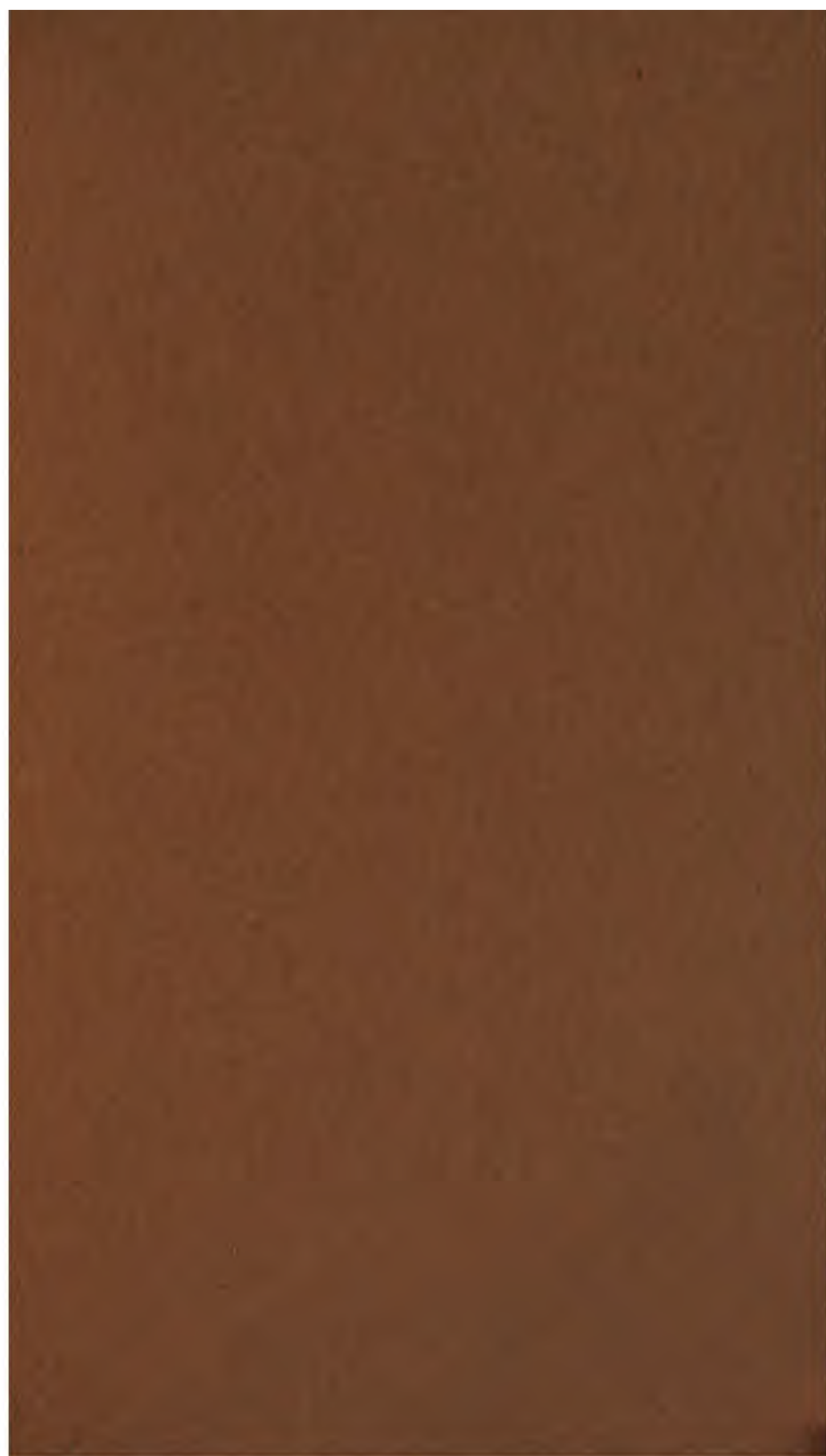
	SIZE.	NUMBER.	LENGTH.
	2"	1	28 feet
	1½"	2	43 "
	1"	4	155 "
	¾"	220	8,455 "
	½"	2	57 "
Total . . .		229	8,738 feet.

Total number of service pipes laid to January 1, 1902, 10,520.

Total length of service pipe used in making service connections, 66 miles, 4,121 feet.

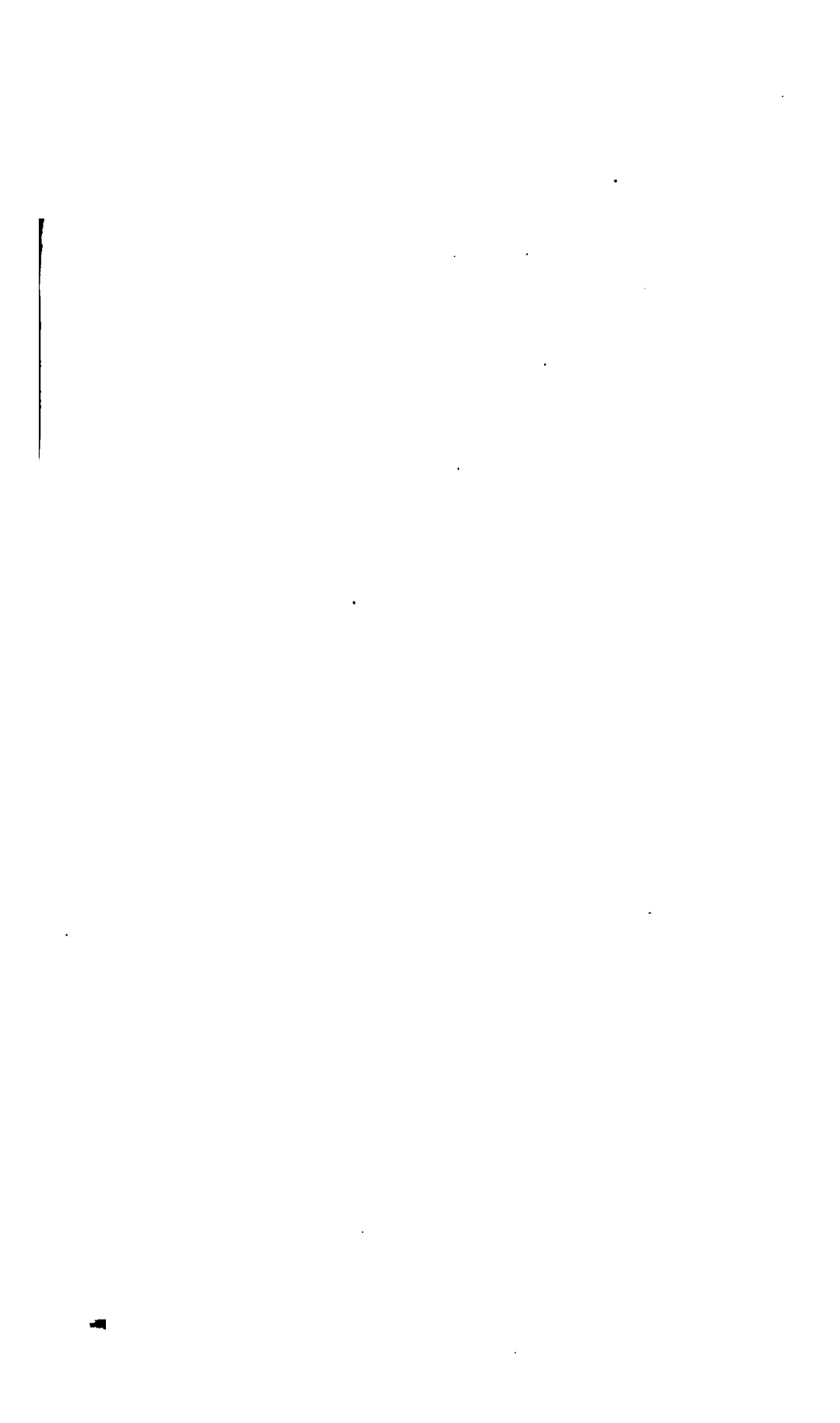
SERVICE MAINTENANCE.

Leaks repaired on service pipes	179
Iron service boxes set	227
New service gates set on old connections	87
Services cleaned of sediment, fish, etc.	37
Services replaced at city's expense on account of defective pipe and fittings	26



110 mwp

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